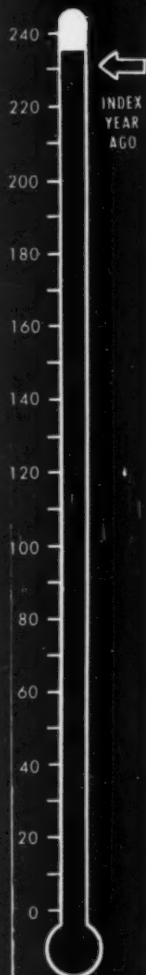


BUSINESS WEEK

The Mine Workers

BACKGROUND FOR CRISIS
PAGE 132



Cleveland-Cliffs' Treasurer: For one man, profit is the thing (page 68)

A MCGRAW-HILL PUBLICATION

JUNE 7, 1952

TWENTY FIVE CENTS



Chemical Progress

FOR THE FIRST TIME—

Mica by the roll!

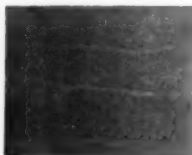
Mica Mat A NEW
DEVELOPMENT IN MICA
INSULATION—MAY FREE
U.S. FROM DEPENDENCE
ON FOREIGN SOURCES



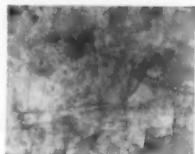
Continuous G-E mica mat sheet emerges from machine which forms minute mica flakes into flexible rolls of highly uniform mica insulation.



Blowtorch test indicates the high temperature resistance of G-E mica mat, which can be heated red-hot without damage.



Greater uniformity of new G-E mica mat (above right) is shown in contrast to conventional mica insulating sheet (right).



Here's the newest product of General Electric chemical research—mica in continuous sheet form! This development, which permits the use of low-grade domestic mica for electrical insulation, may free our mica industry from dependence on foreign sources and alleviate a serious shortage threat to the electrical industry.

G-E mica mat is 100% mica in the form of flakes and particles in continuous sheets. It gives better performance than present machine- and hand-laid mica products because of its greater uniformity of thickness and its void-free construction.

Capable of being impregnated with resins and bonded to paper, glass or cloth for greater strength and improved electrical properties, G-E mica mat tapes and sheets can be used in heating devices, molded into shapes for motors and generators, or machine-wrapped on bars and cable.

For a complete technical report on G-E mica mat, write to General Electric Company, Section 100-3A, Chemical Division, Pittsfield, Massachusetts.

PLASTICS COMPOUNDS • SILICONES • INSULATING MATERIALS • GLYPTAL® ALKYD RESINS • PLASTICS LAMINATING, MOLDING, AND EXTRUDING

You can put your confidence in—

GENERAL  ELECTRIC



Just some of the many things a Bell telephone man needs for installing telephones.

WHERE DOES HE GET THAT STUFF ?

Well, mostly from us—at Western Electric. You see it's our job—as the manufacturing and supply unit of the Bell System—to provide almost everything Bell telephone people use in your service.

Some things we *manufacture* ourselves—the rest we *buy* from other manufacturers. Our test is: which way can we assure the Bell telephone companies of *highest quality at lowest cost*? On telephones, switchboards, cable, electronic apparatus, and so on, we can best meet this test in our own factories—

so we *make* them. But ladders, pliers, rubber gloves, office equipment and a host of other things can best be made by others who specialize in their production—so we *buy* them.

Marshalling the special abilities of some 22,000 concerns—together with Western Electric's own manufacturing skills—is a job that's unique in industry. That it is being done—and done well—is a major reason why Bell telephone service has gone up in price *so much less* than other things you buy.

Western Electric



A UNIT OF THE BELL SYSTEM SINCE 1882

*It counts
your
"UPS and
DOWNS"*

Added Evidence
that _____

Everyone Can Count on VEEDER-ROOT

Elevator Mileage Recorders give accurate figures on vertical miles . . . so that it can be plainly seen...*in advance*...when it's time to replace cables, overhaul cars, motors, and what have you . . . including your life.

Yes, the V-R wheelmark monogram protects millions of people daily, from the depths of the sea to the stratosphere. Of course, not all V-R Products and services are available nowadays



... but if your work counts importantly in defense, then you can count on Veeder-Root to help you, as soon as rush commitments permit.

VEEDER-ROOT INCORPORATED

"The Name That Counts"

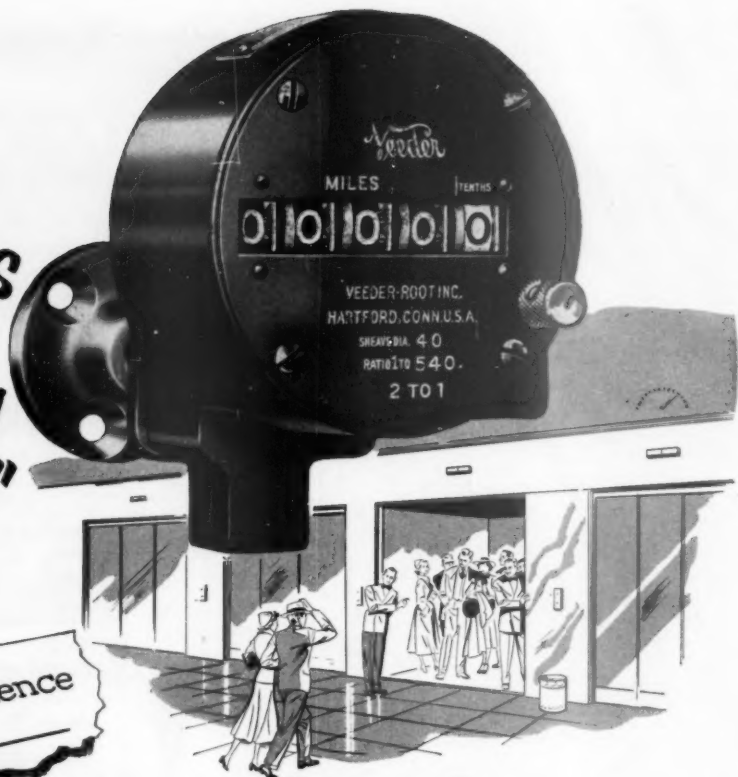
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PERIMETER HEATING FOR NEW 15-STORY APARTMENT BUILDING

Flamingo Apartments, Philadelphia. Architect:
 John H. Graham, A.I.A. Associate Architects:
 Sweet & Schwartz, A.I.A. General Contractor:
 Turner Construction Co. Heating Contractor:
 Benjamin Lesser Co., Inc.

Webster Tru-Perimeter Heating, with series-connected Webster Walvector and Webster-controlled continuous flow hot water, provided designers of the Flamingo Apartments with comfort heating and attractive interiors without sacrificing economical construction. With no hung ceilings or furred columns to conceal piping, consider these features:

- 1—Supply and return risers were concealed in partitions at convenient column locations; used less than half the risers required in conventional piping.
- 2—Connections concealed in continuous Walvector enclosures.
- 3—Attractive, compact heating.
- 4—Constant draft-free, mild heat, automatically responding to outside temperatures.



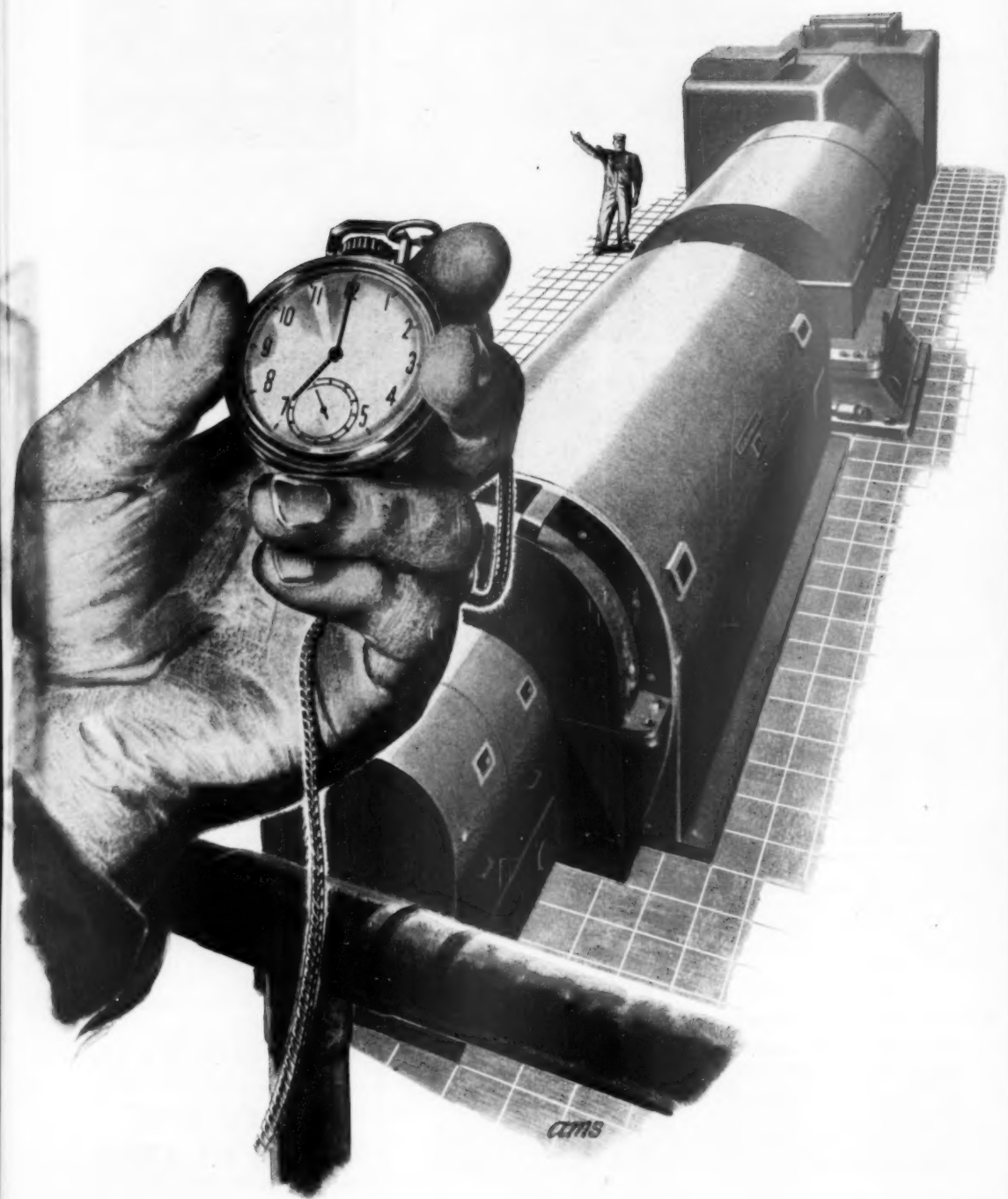
Living room in typical apartment showing Webster Walvector.

Webster Tru-Perimeter Heating uses Webster Walvector or Webster Baseboard on outside walls where heat loss occurs. It warms exposed walls, the room air, the floors. Even slab floors are warm and comfortable. Webster Tru-Perimeter Heating uses forced hot water or Moderator controlled low-pressure steam. Get full details on Webster Tru-Perimeter Heating for new construction or for modernizing from your Webster Representative, or write us.

Address Dept. BW-6

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 in Canada, Darling Brothers, Limited, Montreal

Webster
WALVECTOR
 For Steam or Hot Water Heating



**A nontechnical report to management
concerning profits**

They did what you can do to save time

Since time is worth money in manufacturing, then the story of this southern chemical manufacturer is important to management men in every industry.

They said in part: "Your *prompt* response to our cry for help the other night enabled us to resume operation on schedule. It was more than a service, it was a very gracious act which we will long remember."

They were unable to start their 6,000 kw turbine following a holiday shutdown. At 8 P.M. they telephoned our District Office in Atlanta. One of our Engineering and Service men left immediately and drove all night to the customer's plant. He arrived at five the next morning. Two hours later, the turbine was back in service.

This same emergency and disaster service applies to every industry, to every manufacturing process. It is a part of the total Westinghouse services you can use to your profit . . . for application, installation or maintenance.

We want to do the kind of planning with you that applies these engineering services to your problem . . . to save time, to save money, to make money, to produce more with what you have. Your nearest Westinghouse office can tell you how. Westinghouse Electric Corporation, Pittsburgh, Pennsylvania.

YOU CAN BE SURE...IF IT'S
Westinghouse





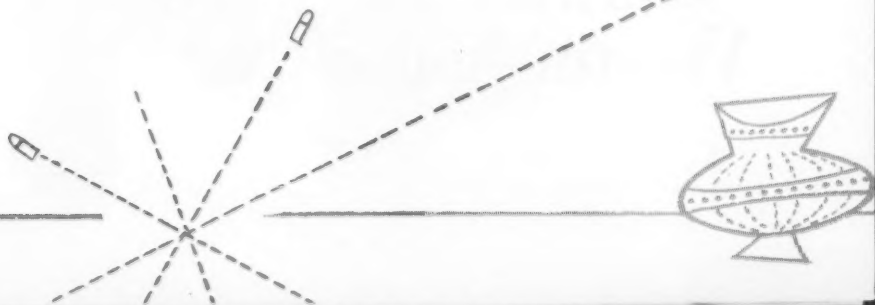
Silex Coffeemakers have covers of MELMAC; handles and tray are of BEETLE urea; made by The Silex Co.



Kenco crushed fruit jar molded of MELMAC; Kenco Products Corp.



MELMAC cap for Electric Auto-Lite Company distributors, manufactured for jeeps and trucks.



Has competition got you hopping?

*take the offensive with **MELMAC**[®] moldings!*

Here are a few of the hard-hitting, sales-compelling advantages you put into your product when you mold it of MELMAC:

RESISTANCE TO IMPACT, ABRASION AND WEAR. MELMAC has the hardest, most durable surface of any plastic material. Its phenomenal resistance to breaking, chipping and cracking has been proven in such applications as lighting reflectors, tableware, containers and housings for household appliances.

PERMANENT COLOR. MELMAC provides a wide range of *molded-in colors* that save you the cost of color application and won't fade, crack, chip, flake or peel.

LIGHTER WEIGHT. MELMAC is light in weight, yet has the solid substantial "feel" of much heavier materials. This, together with its lustrous color and break-resistance, is "proving out" in sales of coffee percolators, fountain equipment and kitchen ware.

BETTER CORROSION RESISTANCE. MELMAC is unaffected by common solvents, greases, oils, weak acids and alkalies, salt water and perspiration.

BETTER ELECTRICAL PROPERTIES. MELMAC has extremely high dielectric strength and arc-resistant properties that minimize hazards from short circuiting and fire—a proven record of outstanding performance in ignition parts for automotive and aircraft equipment, terminal blocks, circuit breakers, electric motor insulation.

If you want a material that offers all these advantages, yet can be molded into almost any shape and is easy to handle and ship, MELMAC is your material!



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PLASTICS DEPARTMENT

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Electronic
Equipment



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Wiremaker for
Industry

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Golden Anniversary Means**

—product performance that can come only from a "know-how" that has grown through actual service since the early days of the electrical industry.

—an ability to co-operate in pioneering new wires to meet or anticipate industry's growing needs.

In the years that follow this program is

—TO BE
CONTINUED

....WIRE WITH Belden AND CUT COSTS

CUT COSTS—start with the right wire—a wire engineered for your product—for internal connections—power supply cords.

CUT COSTS—in lower installation costs—in less production line wastes and fewer rejections upon inspection. Prevent failure in service—insure customer good will.

CUT COSTS—specify Belden Wire. Our engineers can demonstrate these advantages of "wiring right." Investigate, today.

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Plus Protection
in Belden
Hook-up Wire

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WIREMAKER FOR INDUSTRY

READERS REPORT

Savings Up

Dear Sir:

I read the article "Savings and Loan Associations Boom" [BW—May 17 '52, p148], and I found it extremely interesting and very factual. Your publication is to be congratulated on having the courage to explain to the public the differences between savings and loan associations and banks. . . . We would like to send copies of the article out to our customers.

SIDNEY J. TAYLOR

ASSISTANT VICE-PRESIDENT
DEVON-NORTH TOWN STATE BANK
CHICAGO, ILL.

Prices Down

Dear Sir:

I have long read your magazine and felt confidence in your many articles, but where or how did you come up with the statistics as printed in your Business Outlook [BW—May 17 '52, p17]?

You state: "Prices are declining, so the need for multiple incomes per family is less. . . ."

That really is a joke—where do you find prices declining? Food, rent, and all other commodities have never been reduced; in fact, they are going higher. Trying to manage on one salary with a decent average standard of living has become practically a thing of the past.

I enclose a clipping from the Cincinnati Post which substantiates my contention of higher prices . . . in the food angle. . . .

BETTY R. CALLAHAN

CINCINNATI, OHIO

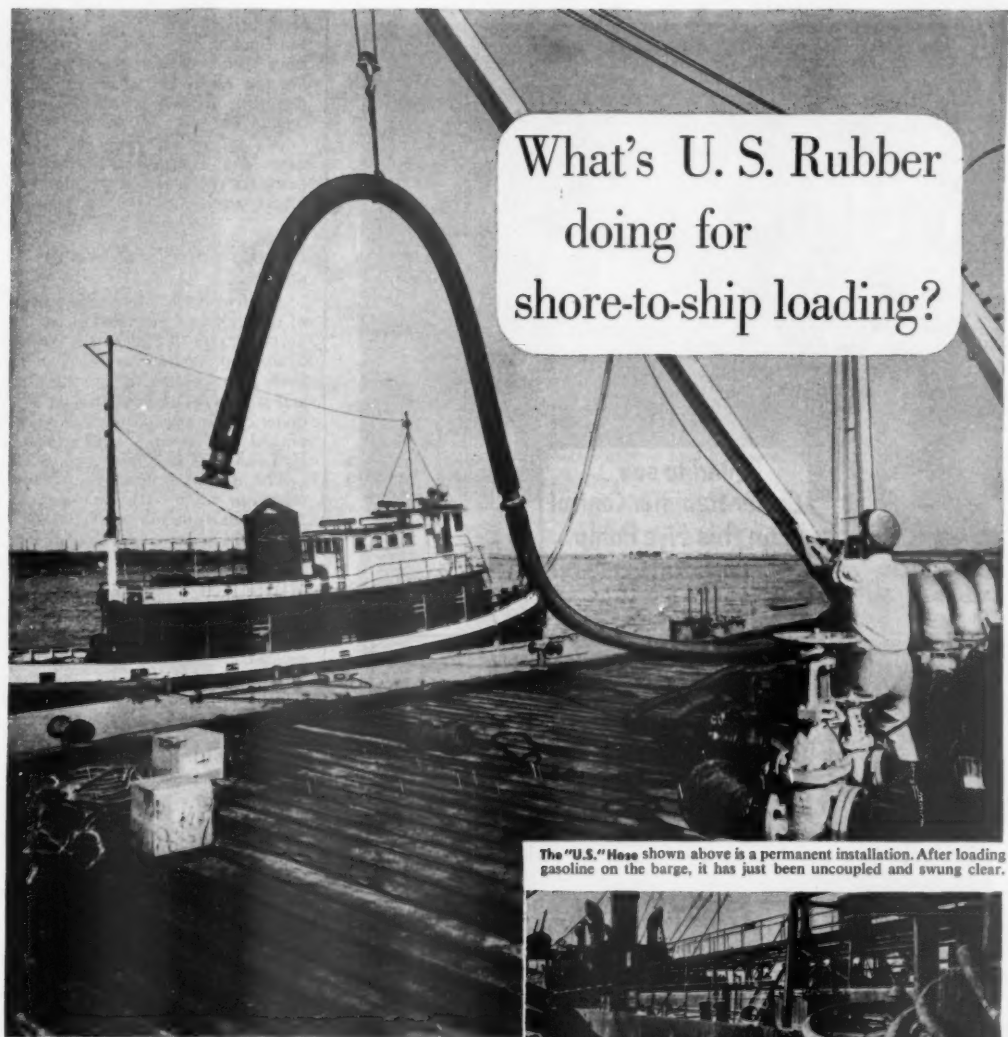
• Actually, prices on many items from men's shirts and furniture to frozen orange concentrate have declined. The turnaround in wholesale food prices, after several weeks of steady decline, is due chiefly to a jump in pork prices—which any farmer will agree have been out of line for a long while.

Engineers Are the Backbone

Sirs:

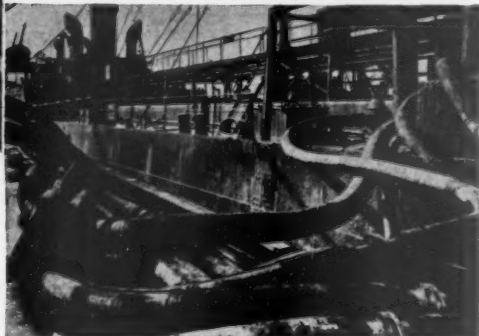
Your report of the construction boom is excellent [BW—May 3 '52, p88]. But you omitted one essential fact in this report: The construction industry is guided by civil engineers!

Civil engineers are the backbone of every construction firm mentioned in your article. Behind every project built by the giant construction industry (excepting residential and farm structures) is the work of civil engineers who make the preliminary designs, economic studies, and final plans in advance of



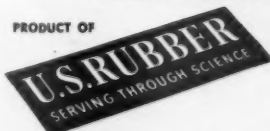
What's U. S. Rubber
doing for
shore-to-ship loading?

The "U.S." Hose shown above is a permanent installation. After loading gasoline on the barge, it has just been uncoupled and swung clear.



"U.S." has a complete line of dock hose and sea-loading hose—containing types and specifications to meet any kind of demand. Each hose was developed by engineers who keep abreast of the latest loading techniques, men who know what a hose must do under today's rugged requirements. For engineering advice, and help on your hose problems, write to address below.

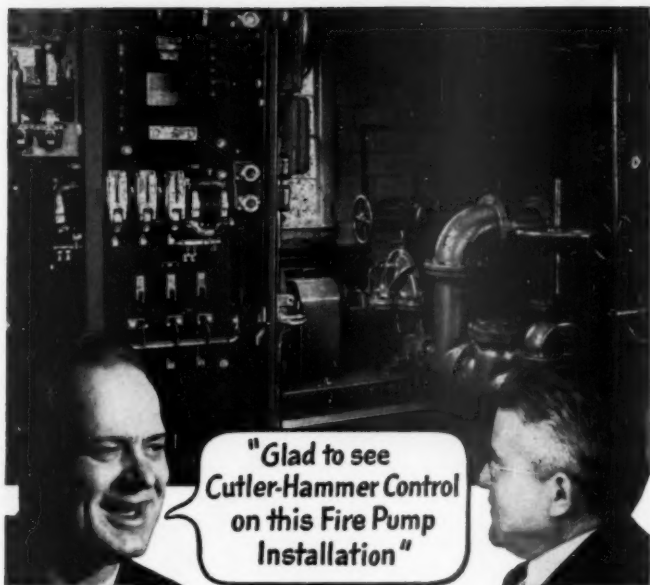
PRODUCT OF



Resistance to petroleum oils is built into U. S. Oil Hose for suction or discharge work at refineries, terminals, and loading or unloading tanks or barges. The special "U. S." construction combines adequate pressure resistance and durability while allowing required flexibility. All covers are highly resistant to action of sunlight and weathering.

UNITED STATES RUBBER COMPANY

MECHANICAL GOODS DIVISION • ROCKEFELLER CENTER, NEW YORK 20, N. Y.



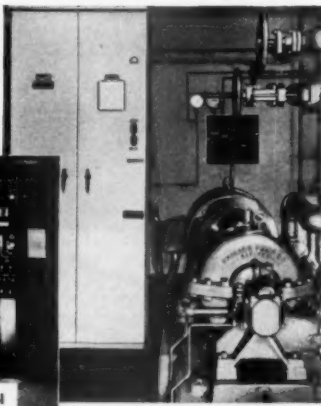
Time is never more important than during the first few moments of any fire. Minutes can easily make the difference between safety and disaster. That is why the motor control you use is of utmost importance in fire pump installations. And that is why Cutler-Hammer Fire Pump Controllers are the *specified* choice of far-seeing fire pump purchasers everywhere. No other motor control is so widely recognized for dependability. Insist on

The Engineer Said: "We always insist on Cutler-Hammer Control for our fire pumps; their dependability is too important to take chances."

Cutler-Hammer Fire Pump Control. Approved by Underwriters' Laboratories and Factory Mutual. CUTLER-HAMMER, Inc., 1275 St. Paul Avenue, Milwaukee 1, Wisconsin. Associate: Canadian Cutler-Hammer, Ltd., Toronto, Ontario.



Fire pump with Cutler-Hammer Control installed in a Chicago industrial plant.



Cutler-Hammer equipped fire pump in a large Texas office building.

construction—and who supervise as construction engineers the whole job from setting the first stake to showing the top executives what switch starts the plant in motion at the opening ceremonies.

F. T. MAVIS

DEPT. CIVIL ENGINEERING
CARNEGIE INSTITUTE OF TECHNOLOGY
PITTSBURGH, PA.

Smoke and Dirty Water

Sirs:

... I wish to endorse the statement of the industrial representative ... reporting on the Pasadena Air Pollution Symposium, to the effect that "industry itself is making greater progress in air and stream pollution control in its laboratories than could ever be accomplished by legislation and regulation" [BW—May 17 '52, p64].

The unknown problems still to be solved, in order to accomplish the control of air pollution economically and practically, are so tremendous that only industry itself can arrive at the correct answers.

You cannot tag chimneys as you would tag an automobile at the curbstone and, if you get tough, as recommended by some, you may end up by burdening industry with tremendous unnecessary expense, which must be reflected in the cost of the end product, and you may drive industry out of the community. ... A little patience would result in improved conditions and a spot where industry can be attracted.

T. C. WURTS

DIRECTOR
ALLEGHENY COUNTY BUREAU OF
SMOKE CONTROL
PITTSBURGH, PA.

• BW readers may also be interested in last week's story "Big Savings From Bad Smells" (BW—May 31 '52, p30).

Psf, Please

Gentlemen:

\$47.52! That would be the cost of our Acme Steel Floor Plate per square foot, if BW readers believed your New Products announcement [BW—May 10 '52, p60]. Certainly hope no one did. You erred in quoting the price as 33¢ psi. whereas it should have read 33¢ psf. So please change an "i" to an "f," and we can save your interested readers \$47.19 psf. Frankly, we still find gold a little too soft for practical, long-wearing industrial floors. We're sticking to hot-rolled steel.

J. E. BORENDAE

ACME STEEL CO.
CHICAGO, ILL.

• BW changes its "i" to an "f" and apologizes for the typo.

Ever try to find a CONVERSATION?

It's hard enough to remember
what you said—what the other fellow said—
in a talk just *yesterday*! In a week, memories
get lost—figures confused—names and addresses
foggy—instructions forgotten!

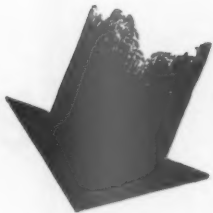


**WESTERN
UNION**

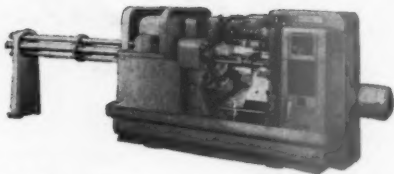
USE TELEGRAMS FOR
EVERY BUSINESS MESSAGE
IT PAYS TO REMEMBER!

WESTERN UNION

One answer to the manpower shortage



THE WARNER & SWASEY 5-SPINDLE AUTOMATIC



THIS NEW automatic machine, with its advanced *camless* design, helps answer one of the biggest problems facing industrial management today—the problem of increasing production in the face of today's tight manpower market.

In many cases, one 5-Spindle Automatic is out-producing five or six manually operated

machines—and one man can operate two of these automatics!

And setup is simple and quick—averaging 4 or 5 hours for a completely new setup—making these machines ideal for short and medium lot runs.

Think of the savings in time and cost from this one feature alone...NO CAMS TO CHANGE.

NO CAMS TO DESIGN



NO CAMS TO MACHINE



NO CAMS TO STORE



NO CAMS TO FIND



NO CAMS TO CHANGE



IT'S SIMPLE TO SET UP

**WARNER
&
SWASEY**
Cleveland

YOU CAN PRODUCE IT BETTER, FASTER, FOR LESS WITH WARNER & SWASEY MACHINE TOOLS, TEXTILE MACHINERY, CONSTRUCTION MACHINERY



Put 'em on a diet . . . with Pure Oil Industrial Lubricants

In the complete line of high-quality industrial lubricants Pure Oil makes, you will find many oils and greases designed to do several *different* jobs, instead of one specific job.

And to do each job *equally well*.

This makes it possible for you to do *all* your lubricating with *fewer* lubricants. In other words, you can

simplify and save . . . with

Pure Oil Industrial Lubricants



Be sure

with Pure

If you would like to keep your lubrication requirements from hogging your profits (and a penny saved is more than ever a penny earned, these days!) write: The Pure Oil Company, Industrial Sales, 35 E. Wacker Drive, Chicago 1, Illinois.

"Stop accidents

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Employers Mutuals write: Workmen's Compensation-Public Liability-Automobile-Group Health and Accident-Burglary-Plate Glass-Fidelity Bonds-and other casualty insurance. Fire-Extended Coverage-Inland Marine-and allied lines. All policies are nonassessable.



EMPLOYERS MUTUAL LIABILITY INSURANCE COMPANY OF WISCONSIN
EMPLOYERS MUTUAL FIRE INSURANCE COMPANY

In BUSINESS this WEEK . . .

• The Steel Decision . . .

. . . will have historic consequences for:

The nation. P. 180

Collective bargaining. P. 27

Government and its role in labor relations. P. 28

Washington, where the outlook is changing fast. P. 23

(The Washington Outlook)

Business, which already counts the strike inflationary. P. 17

(The Business Outlook)

• Soil Conditioners . . .

. . . are the "hot" product of 1952.

For Monsanto, which started the fun, Kriklum turned out to be a basketful of excitement. P. 38

• Hot Competition . . .

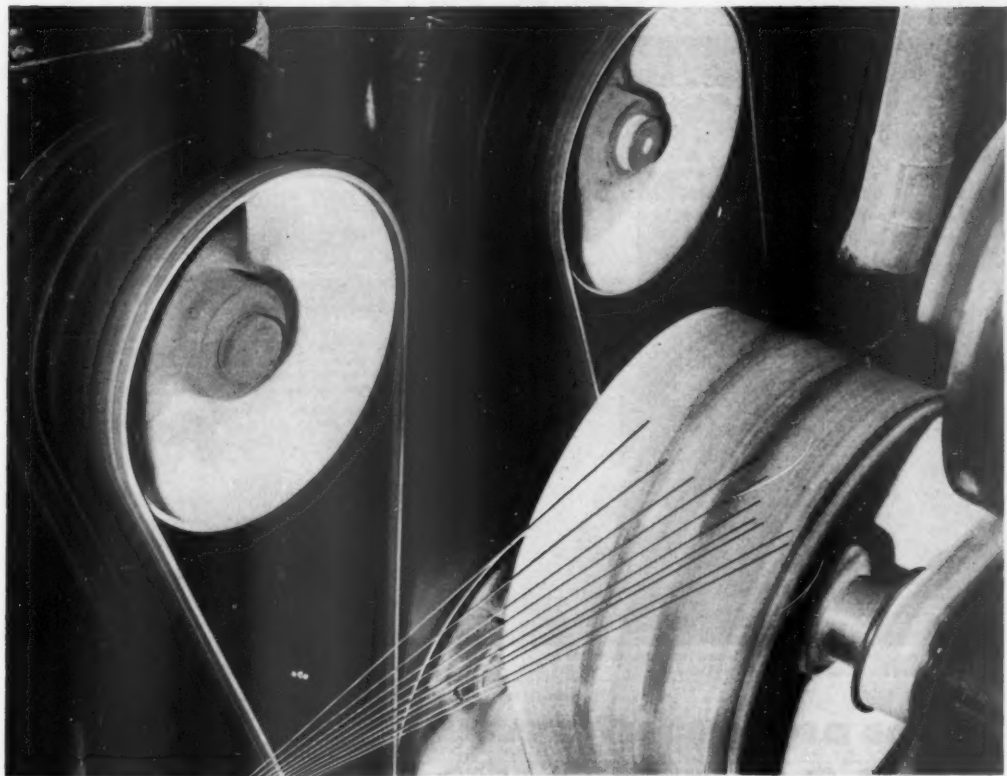
. . . from metal has forced the makers of wood office furniture to develop a lot of new ideas. Here's the story and pictures on their glamorous new equipment. P. 102

• Odd-Lot Dealers . . .

. . . are indispensable to a stock exchange. They handle all small orders. But chances are that even your broker doesn't know much about them. Here's the full story on how these dealers operate. P. 116

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SINEWED for extra STRETCH-FREE STRENGTH with DU PONT "CORDURA"!

Stretch and slippage are virtually eliminated in leather belting reinforced with this Du Pont High Tenacity Rayon yarn.

Thin cords of "Cordura" placed between laminations of leather in a belt add stretch-free strength to leather's natural hold. Yarns of "Cordura" are much stronger than yarns of natural fibers, because "Cordura" is made in continuous filaments. There are no short ends to pull apart under stress. Belts require fewer take-ups, less

maintenance.

You'll find "Cordura" in a wide variety of products today... the unseen component that makes truck tires stronger and safer at high speeds, hoses lighter yet tougher, conveyor belts more flexible, with better troughability.

Send the coupon now for the free booklet "Sinews for Industry." It tells how "Cordura" improves products you use, and may also suggest improvements in products you make.

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STRENGTH AT LOW COST

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Westinghouse-Sturtevant fans are used in this special Environmental Test Chamber that duplicates air conditions from sea level to 20 miles up for testing RCA electronic equipment.

HOW DO ELECTRONIC DEVICES BEHAVE 70,000 FEET UP?

Lives depend on the answers found in this atmospheric testing chamber in type-test laboratories of RCA's Engineering Products Department. But the answers aren't easy to get. For the big problem is to duplicate as accurately as possible the thin, cold air of high altitudes.

The solution? Powerful Westinghouse-Sturtevant Axiflo Fans constantly circulate chilled air, force temperatures down as low as -85°F . Working against a partial vacuum, created to simulate low pressures encountered in the upper regions of the stratosphere, these fans keep temperatures uniform to within several degrees by providing a homo-

geneous mixture of air throughout the chamber.

No matter how you want to *put air to work*—whether air handling, air conditioning or air cleaning—Westinghouse offers you a complete line of industry-proven equipment to fill your needs. For complete details, call your local Westinghouse-Sturtevant office. When you do, also ask for new General Catalog 600—a 60-page reference file for Putting Air To Work. Westinghouse Electric Corp., Sturtevant Division, Hyde Park, Boston 36, Mass.

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Axiflo Pressure Fans find wide use throughout industry because of adaptability to duct systems and for discharge against high winds.



3-Bladed Aluminum wheel is non-sparking, corrosion-resisting; handles large volumes.



9-Bladed Steel Wheel is non-overloading, quiet and stable; ideal for high temperatures.

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AIR HANDLING

BUSINESS OUTLOOK

BUSINESS WEEK

JUNE 7, 1952

A
BUSINESS
WEEK
SERVICE

Lost output and lost pay gradually are gaining importance among the effects of the steel situation.

Earlier, we talked about higher wage rates and higher prices. Those will come, in due course, but some of the edge has been taken off them.

Steel mills were closed this week for a third time. Purchasing power was being lost—not just in steel but in ore and coal and shipping.

The new wage scale will make this up for steelworkers, but not all at once. Meanwhile, with consumer goods moving off dealers shelves none too rapidly, another at least temporary drag is imposed on business.

Lost output, in an industry that long has been running above rated capacity, would seem to be directly inflationary.

That's true, at least, in lines that can't get enough steel (mainly munitions). But it doesn't apply equally to all industry.

Here and there, steel has been catching up with demand. Once again the date of the final catch-up is postponed, but not by too much.

Moreover, only a few consumer lines are using all the steel they are entitled to. They won't be bidding up prices because of the lost output.

Industry, most of all, is getting fed up with expedients aimed at ending steel strikes without a price-wage agreement.

Neither Taft-Hartley nor new legislation will fill the bill.

A new contract would be written in no time if price controls were suspended. (Wage ceilings have been shattered as things stand.) Short of suspension, Washington still will have to backtrack on prices.

That was clear as negotiations started anew on Thursday (page 27).

Higher prices and wages in steel won't have much immediate effect on the cost of living. But there could be a delayed reaction.

For now, consumers are in no mood for price increases.

But they may be later. The new round of wage boosts will add to purchasing power. Meanwhile, industry's cost-price squeeze tightens.

Scattered price cuts in purchased parts and materials make it a little easier for manufacturers to absorb some added costs now.

The index of 16 industrial raw materials compiled daily by the Bureau of Labor Statistics has fallen 30% from its peak. The broader wholesale average (which is more representative) is down 5%.

Sharpest recent drops have been in lead and in natural rubber. And the expected decline in zinc came this week with a cut of 2¢ a lb.

Look at employment, and you will get some idea why there isn't too much inflation in the air these days.

To be sure, unemployment is almost negligible. But there's the catch: Total employment, even though it climbed above 61-million in May, was a shade lower than a year ago.

We know, too, that hours worked per week are down in many lines. Thus payrolls, despite higher wage rates, are doing well to hold even.

BUSINESS OUTLOOK (Continued)

BUSINESS WEEK

JUNE 7, 1952

Here's an unusual balance: Employment is only a few thousand under a year ago at almost 61.2-million, and unemployment is almost exactly the same at 1.6-million. The civilian labor force hasn't grown at all.

Obviously, new people came of working age. The military mustered out about as many as it took in.

Retirements are common in a tightening labor market. But generally, there is a rise in unemployment, too.

•
Production, over-all, is moving very much as expected.

The Federal Reserve Board's index for April now is put at 216 (about 3% below its 1951 high). And, from fragmentary data now available, the board figures that May will run about 214.

Output of durable goods was about the same in April as at the end of 1951. Thus the decline in hard goods for civilians has offset any rise there may have been in military production.

•
How big is the market for household goods?

If you followed the Federal Reserve's output index for this type of production over the last three years, you might come up with widely diverging answers.

Production of things like carpets, furniture, appliances, and TV sets showed a huge hump in 1950 and 1951. In the nine months after Korea, it averaged about 60% higher than in the 1947-49 base period.

Since mid-1951, however, it's been back close to the 100 line.

•
Furniture output has shown more stability than most household items so far this year—and the recent trend has been slightly upward. Major appliances, however, seem still to be pretty deep in the trough.

•
Output of new autos isn't coming close to last year's records, but the total at least is climbing.

The industry fell just short of a million cars in the first quarter. The current quarter, however, should top 1.2-million without any trouble.

Producers may have been more optimistic than dealers. Anyway, they began boosting output in April—well before credit terms were eased.

Output for the half year will top 2.2-million cars—not quite one-third less than the 3.1-million for the same period last year.

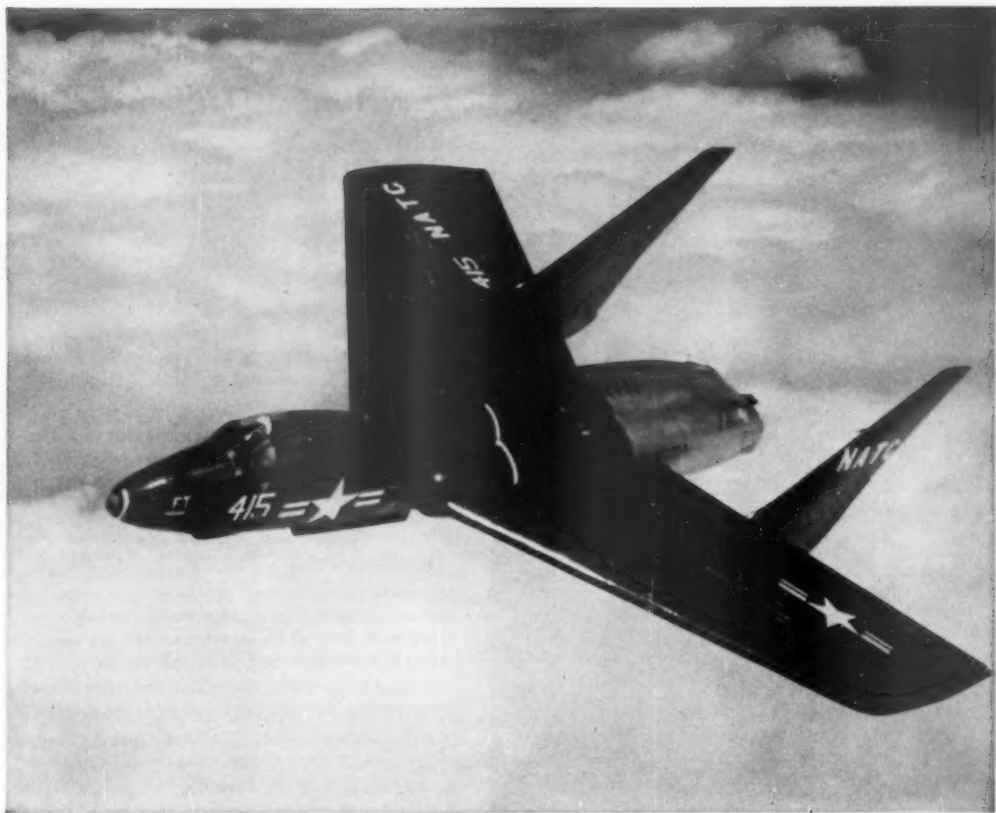
•
Consumers soon will be buying more on credit than a year ago—which should be a mildly favorable portent for retailers.

Outstanding consumer credit began to rise in April, and not all the money went into new cars; there was a fair raise in charge-account buying, too (against a fairly sharp drop in the same month a year ago).

The April rise carried the consumer credit total to \$19.8-billion, only a quarter-billion under year-ago levels. Removal of the curbs on instalment credit should do the rest.

•
Construction is entering its most active season at the highest levels ever. The Commerce-Labor Dept. estimates put May outlays at \$2.7-billion, a record for that month.

The five months set a new high, too, at \$11.9-billion. Private spending was down 4%, but public more than made up with a 25% gain.



Chance Vought F7U-1 Cutlass

Here's a simple equation:

NO HIGH ALLOY STEEL = NO PLANE

Without stainless steel, super-high-temperature steels and special electrical alloys, it just wouldn't be possible to build, power and control a plane in the over-600-miles-per-hour class. That is our job: to develop and produce such metals . . . and if you have any problems that involve resisting corrosion, heat, wear and great stress, or require special magnetic properties, we're the people to see. *Allegheny Ludlum Steel Corporation, Oliver Building, Pittsburgh 22, Pa.*

PIONEERING on the Horizons of Steel

Allegheny Ludlum





...whose little half-girl are you?

The sad thing is, she might be anybody's . . . *yours*. Half-girls turn up in every business there is, from a dry cleaning shop to a steel corporation.

What *are* half-girls? Girls who produce only half what they might—because the system won't let them do more!

Norma here is a good example. Look at the system *she* has to work with: loose carbons that wrinkle and tear . . . order pads that won't hold still . . . spindles that create piles of confusion.

It's just as bad where forms are typed or machine-written—and *just as easily corrected*.

In Norma's case, a Uarco Register and Forms eliminate every waste move. In another case, it's a matter of getting the right *form* for the job, of combining several forms into one. In any case, with either handwritten or typewritten forms, in any kind of business, the switch to Uarco Business Forms turns half-girls into full-time producers!

Remember that the pennies you spend for better forms save dollars in filling them out. As for *finding* them, that costs nothing . . . just call your Uarco Representative. For free samples of forms used in your field, write Uarco Incorporated, Room 1625, 141 W. Jackson Blvd., Chicago 4, Ill.

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UARCO

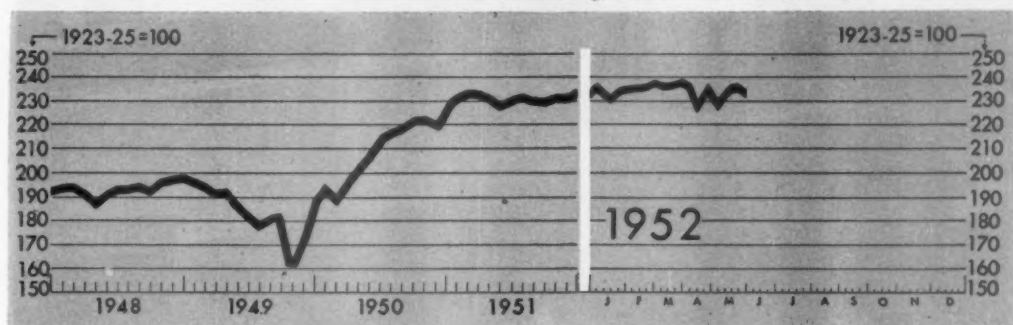
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FIGURES OF THE WEEK



Business Week Index (above)

Latest Week	Preceding Week	Month Ago	Year Ago	1946 Average
234.7	236.9	229.8	229.5	173.1

PRODUCTION

Steel ingot production (thousands of tons).....	N.A.	12,091	1,775	2,063	1,281
Production of automobiles and trucks.....	103,722	112,723	128,385	121,476	62,880
Engineering const. awards (Eng. News-Rec. 4-week daily av. in thousands).....	\$45,925	\$47,727	\$50,395	\$43,421	\$17,083
Electric power output (millions kilowatt-hours).....	6,811	7,146	6,949	6,445	4,238
Crude oil and condensate production (daily av., thousands of bbls.).....	N.A.	N.A.	6,296	6,169	4,751
Bituminous coal production (daily average, thousands of tons).....	1,497	1,398	1,625	1,623	1,745

TRADE

Carloadings: manufactures, misc., and l.e.l. (daily av., thousands of cars).....	74	74	75	79	82
Carloadings: all other (daily av., thousands of cars).....	53	52	55	57	53
Department store sales (change from same week of preceding year).....	+4%	None	+3%	+3%	+30%
Business failures (Dun and Bradstreet, number).....	136	145	150	132	217

PRICES

Spot commodities, daily index (Moody's Dec. 31, 1931 = 100).....	434.7	1433.8	433.0	492.1	311.9
Industrial raw materials, daily index (U.S. BLS, Aug., 1939 = 100).....	271.4	274.8	280.2	343.4	198.8
Domestic farm products, daily index (U.S. BLS, Aug., 1939 = 100).....	346.8	1347.1	338.5	381.7	274.7
Finished steel composite (Iron Age, lb.).....	4.131e	4.131e	4.131e	4.131e	2.686e
Scrap steel composite (Iron Age, ton).....	\$42.00	\$42.00	\$42.00	\$43.00	\$20.27
Copper (electrolytic, Connecticut Valley; lb.).....	24.500e	24.500e	24.500e	24.500e	14.045e
Wheat (No. 2, hard and dark hard winter, Kansas City, bu.).....	\$2.43	\$2.45	\$2.48	\$2.36	\$1.97
Cotton, daily price (middling, ten designated markets, lb.).....	\$9.80e	\$38.70e	\$8.41e	\$5.19e	\$0.56e
Wool tops (Boston, lb.).....	\$2.05	\$2.05	\$1.85	N.A.	\$1.51

FINANCE

90 stocks, price index (Standard & Poor's).....	189.4	189.8	187.2	170.0	135.7
Medium grade corporate bond yield (Baa issues, Moody's).....	3.49%	3.49%	3.50%	3.43%	3.05%
Prime commercial paper, 4-to-6 months, N. Y. City (prevailing rate).....	21-21%	21-21%	21-21%	21-21%	1-1%

BANKING (Millions of dollars)

Demand deposits adjusted, reporting member banks.....	52,902	52,170	52,303	50,034	144,521.0
Total loans and investments, reporting member banks.....	73,865	73,365	73,333	69,369	171,147
Commercial and agricultural loans, reporting member banks.....	20,524	20,636	20,796	19,048	119,221
U.S. gov't and guaranteed obligations held, reporting member banks.....	31,768	31,577	31,456	30,443	149,200
Total federal reserve credit outstanding.....	23,742	23,794	23,632	23,396	23,885

MONTHLY FIGURES OF THE WEEK

MONTHLY FIGURES OF THE YEAR					
		Month	Month	ago	Average
Private expenditures for new construction (in millions).....	May	\$1,802	\$1,687	\$1,837	\$803
Public expenditures for new construction (in millions).....	May	\$947	\$842	\$810	\$197
Consumer credit outstanding (in millions).....	April	\$19,771	\$19,558	\$19,126	\$6,802
Installment credit outstanding (in millions).....	April	\$13,302	\$13,155	\$12,904	\$3,025
Manufacturers' inventories (seasonally adjusted, in billions).....	April	\$42.5	\$42.3	\$36.9	\$20.5

* Preliminary, week ended May 31.

** Estimate (BW-Jul.12'47,p16).

N.A. Not available.

† Revised

‡ Data for "Latest Week" on each series on request



Local laws are being enacted to require emergency lighting in the interest of public safety.

WHAT IF SUDDENLY THE LIGHTS SHOULD FAIL

Lives may be endangered and property damaged when lights fail. They do fail... often. For despite all precautions of utility companies, storms, floods, fires and accidents can interrupt normal supply of electric current. Dependable, low cost protection is provided by Exide Lightguards—portable, self-contained, Exide Battery powered. Like larger Exide Emergency Lighting systems, they instantly and automatically take over when normal power sources fail.

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Exide

BATTERIES

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1888... DEPENDABLE BATTERIES FOR 64 YEARS... 1952

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WASHINGTON OUTLOOK

WASHINGTON
BUREAU
JUNE 7, 1952



On steel: Look beyond the immediate excitement. At midweek here's what Washington expects:

Wages will rise, substantially. Murray won't hold out for the full 26¢ package proposed by the Wage Stabilization Board. Current talk is that a settlement can be reached at 18¢ to 20¢, with the union shop issue left over for future negotiations.

Prices will also rise, more than is allowable under the Capehart Amendment. The Administration still opposes this. But the odds are that it will give in at around \$5 per ton to get things settled.

All sides are under heavy pressure to settle. The Administration wants to get shed of the issue, because of ticklish politics involved. Both labor and management face the threat of new legislation in Congress if they permit the dispute to bring on a long, defense-hampering strike. Congress will vote some sort of seizure law if that should become necessary to avoid a shutdown of arms production.

The steel settlement will boost business costs all up and down the line. Steel is basic. And the wages it pays and prices it charges have an influence on just about all wages and prices, directly or indirectly.

Many profits will be squeezed. The steelmakers won't get enough of a price boost to offset all the extra wage costs. They will have to absorb some of the extra costs. And some of the steel-using lines won't be able to pass on their extra steel costs. In some cases, the Office of Price Stabilization won't permit it. And in others, demand is so soft that a price rise might cut sales.

There's bitterness over the Supreme Court decision. For 20 years Justice Dept. lawyers have been building up their arguments to support the theory of vast "inherent" powers for the Chief Executive. The decision blasted these ideas. Even though the ruling applies only to steel, its implications are far-reaching. There is some undercover sniping at Justices Clark and Burton, both Truman appointees, for not lining up with Justices Vinson, Reed, and Minton to support the President.

A big new push for defense is building up. Since last January, defense has had a tendency to coast; a truce in Korea was taken for granted, and Truman O.K.'d the procurement stretchout.

Unfavorable developments abroad are tending to revive the former feeling of urgency. On top of the threat of a new Red offensive in Korea, new tensions are building up in Europe and the Middle East.

The heat is on Congress to vote the full defense budget. Signs are that it is having an effect in the Senate. The Senate didn't go so far as the House in slashing foreign aid—it cut the \$7.9-billion program by \$1.2-billion, instead of \$1.7-billion. House-Senate conferees split the difference, making the cut \$1.4-billion. Odds are the Senate will raise and may even remove the \$46-billion spending ceiling that the House put on defense for the year starting July 1, fiscal 1953.

Spending will continue to rise through the next year, then level out, as the defense buildup hits its peak.

WASHINGTON OUTLOOK (Continued)

WASHINGTON
BUREAU
JUNE 7, 1952

Spending this fiscal year, which ends June 30, will hit \$67-billion. That's a rise of some \$23-billion over the last fiscal year.

Spending in the new fiscal year, starting July 1, is scheduled to hit \$85-billion. It probably won't go that high. But the increase over this year will be substantial—close to \$15-billion.

The budget for fiscal 1954 (the 12 months starting July 1, 1953) is being prepared now, for submission to Congress next January. It contemplates a spending level about equal to that scheduled for this year—\$85-billion.

Health and welfare plans are about out from under wage control. Like pensions, health and welfare plans will henceforth be O.K'd unless they are substantially out of line with usual practices.

WSB's productivity policy is due any day—and it will be liberal. It will be O.K. to measure improved output in pay exceeding the cost-of-living formula. Only string: Labor must agree that it will cooperate in using cost-reduction methods.

Advertising costs under renegotiation will be allowed where they are necessary to protect competitive positions in civilian markets. For details, write: Government Printing Office, Washington 25, D.C., for "Renegotiation Board Staff Bulletin No. 1." Price, 5¢.

There's real heat in the Taft-Eisenhower contest now. The candidates, themselves, are watching their blows. The trouble is with their partisans. They're making the fight for delegates such a rough and tumble affair that the wounds may not heal after the convention.

GOP House members are upset. Reelection of many depends on a strong, well-supported Presidential ticket. A split party would cost some seats in the November voting, as well as endanger the national ticket.

The parade to see Ike is on. The strategy: Converts among the visiting delegates will be widely publicized, with the idea of persuading the doubtful that unless they come in early, they will miss out.

McKeldin's blooper caused embarrassment. It was the Maryland Governor who tipped off the plan of Ike's managers to invite the delegates to visit with him. McKeldin's promise of free trips gave the wrong impression that all delegates would get the same treatment.

Democratic delegates are getting itchy for "the" candidate. Stevenson is the Administration choice. But the longer he holds out, the harder it becomes to hold delegates in line while leaders make up their minds.

Example, Pennsylvania: Philadelphia Democrats are going to Kefauver. In Pittsburgh, Boss David Lawrence is under pressure to take a stand. Harriman's backers are courting him.

Watch for Truman to turn on Congress after the conventions. The plan under consideration is for the President to call the roll on what the Congress hasn't done, blame the record on the Republicans. It's another leaf from Truman's '48 book.

More women
go out
and buy
Woman's Day



than any other
magazine
in the world*

*3,794,000 average 1951 single-copy sales per issue... the world's largest single-copy circulation. On sale at all A&P stores.

"swords and plowshares"



At this very moment, New Departure's three great plants are turning out thousands of ball bearings for both industry *and* the Armed Forces—for trucks *and* tanks, jig borers *and* jets, household appliances *and* electronic equipment.

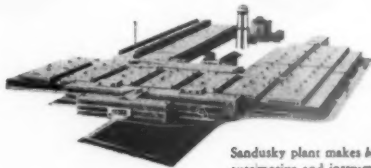
Because all New Departure ball bearings are of the same materials, receive the same heat treatment, are manufactured by the same precision methods, conversion from one to the other at New Departure is largely a matter of changing the emphasis on types and sizes.

Whatever *your* bearing requirements, feel free to call on New Departure. Its engineers, vast research facilities, and the tremendous capacity of its "guns-and-butter" plants are your assurance of the best possible production schedules.



Nothing Rolls Like a Ball...

**NEW DEPARTURE
BALL BEARINGS**



Sandusky plant makes both automotive and instrument bearings.



STEELWORKERS WALK OUT AS SEIZURE ENDS, BRINGING . . .

I. The Showdown in Steel

The real steel strike began this week, on Monday, 43 minutes after the Supreme Court ruled President Truman's seizure null and void.

Industry is counting the ingot lost at a weekly rate of 1.5-million tons. Six hundred thousand United Steelworkers are idled by the strike; thousands of workers whose jobs are dependent on steel have begun getting layoff notices. Railroad workers, as usual, were the first to feel the pinch.

The obvious and easy solution was for the government to give a bit more than it has already offered in the way of a price to offset the Wage Stabilization Board's wage package. At one time, only a dollar per ton stood in the way of a settlement:

Price Stabilizer Arnall admitted he would go along with a \$4.50 increase to the steelmakers; Inland's Clarence

Randall said the company might be able to get by with as little as \$5.50 a ton.

Should President Truman be able to wangle a lower wage settlement out of Murray, the pressure on industry to settle at around \$5 a ton could be redoubled.

If a settlement doesn't result quickly from top-drawer conferences in Washington, military and civilian manufacturing will be seriously hurt within two weeks.

• **Tightening Up**—Washington's materials controls officials on Monday started tightening up on use of steel. They virtually froze steel in the hands of warehouses and exporters, and began parceling out the material by special directive for specific types needed by defense plants.

The week's developments were tightly interlaced. What happened in negotia-

tions between steel management and union chief Phil Murray would affect decisions in the White House on what to do next. And what Truman finally decided to do would bear directly on the next move in Congress.

• **Counteroffers**—On Monday afternoon, John A. Stephens of United States Steel offered to resume negotiations, starting with steel's last offer of an 18¢-an-hour increase, without the union shop.

Murray countered with an offer to negotiate on the union's last offer—the full 26¢-an-hour package, with the union shop, as recommended by the Wage Stabilization Board.

Tuesday night, Truman called his top advisers to the White House. There, it was decided that Defense Mobilization Director John Steelman would invite steel and the union to meet on

Thursday to resume the negotiations.

- **Waiting**—On Wednesday, at another Truman conference, this decision was made: Truman would not move at all, either with a message to Congress or by invoking the Taft-Hartley act, until collective bargaining had broken down again. There was some optimism that a White House bargaining table might bring results this time.

Congressional reaction began to take a turn, too. The first, off-the-cuff judgment on Capitol Hill had been that Congress would do nothing in the way of giving Truman seizure power to prevent a costly shutdown of key industries. Rather, Congress was in a mood to force the President to use the Taft-Hartley 80-day injunction.

- **What's Next**—At midweek, with the strike complete and no sure signs of settlement, this was how Presidential strategy appeared to shape up.

- The President would use Taft-Hartley only as a last resort—and that meant only if Congress continued to refuse him a seizure law.

- If the negotiations starting Thursday between steel and Murray bogged down completely, Truman would then go to Congress and demand a solution to the problem.

- To try to prevent the negotiations from breaking down, Truman would offer steel a new price increase in return for a settlement. He would try to persuade Murray to modify his contract demands a bit, if steel would modify its price demands equally.

Less well-thought-out plans were in the making, too. DPA attorneys talked about requisitioning one or more steel plants to get steel for weapons.

The theorizing is this: The government would rule that a plant could not deliver on a defense contract because of the strike, so the plant could be seized.

This kind of seizure, under the Selective Service Act or Defense Production Act would be tried, though, only if the shutdown became almost catastrophic.

Most of the maneuverings appeared to have this common denominator: All sides are trying to find the easy way out of the steel emergency. A right kind of price increase to the industry, for example, probably would bring headlong settlement. And, if Murray gave up the union shop and a few cents in pay, industry almost certainly would settle for a lower price increase.

- **Larger Problem**—But neither expedient would add a jot or tittle to the larger problem government has in protecting the country from a shutdown of vital industrial production or services. And that is the problem the majority of the Supreme Court handed down when it ruled the President had no "inherent" powers.



JUSTICE BLACK'S DECISION

II. Putting the Strike Issue

The steel strike, reported fully effective in all CIO-covered mills at midweek, still isn't getting one major question answered. That question may prove the most important of the many which remain after the U.S. Supreme Court's historic decision.

The question: Will there be a law?

The length of the strike, its impact on the economy, its effect on the defense program, its ultimate terms of settlement in wage, price, and union shop matters are of course, critical. The ultimate determination of any one of them could—just possibly—have spectacular repercussions.

- **Any Law**—Almost any law, however, that emerges from the steel strike's heat is practically certain to affect significantly the practice of labor relations.

For example, at midweek, while the extension of the Defense Production Act was being debated in the Senate, banking committee chairman Maybank introduced a brand-new amendment. It went before the Senate immediately. It is conceived as both an integral part of DPA and as superseding the national-emergency-strike provisions of the Taft-Hartley act.

Maybank proposes a frank and official recognition of the direct relationship

between wages and prices—matters which, both in World War II and in the present defense period, have been handled as though each stood alone.

The Maybank bill would establish a seven-man, top-level "National Emergency Price-Wage Board" for handling both wage and price disputes. If a serious strike was pending or in progress when the board moved into such a dispute, an injunctive order would immediately make either a strike or lockout illegal. In the following 120 days the board would hear the case and make its recommendations for settlement—to include even changes in wage and price policy, if deemed necessary. If the parties did not accept these recommendations, the government would take possession of the facilities involved.

Maybank's proposal has other provisions that may be changed in the course of debate as, indeed, its salient points may also be. But if the strike excites Congress sufficiently or if it lasts for any length of time, something like the Maybank program may be written into law.

- **New Focus**—This shifts the focus of Congress' approach to labor legislation. Most of the bills that had been in the



Whiskey Pickup

Overstocked industry split on bill to ease its troubles by lengthening period of tax-free storage.

The liquor industry, with overstocks of whiskey sloshing in its collective scuppers, is sailing briskly into a fine new interfamily fight.

In the nation's warehouses at the end of March, there were 768-million gal. That's a nine-year supply at the modest 80-million-gal. annual consumption rate to which tax boosts have reduced the public (BW—May17'52, p44).

• **\$10.50 a Gal.**—In the industry's brain is a dark alarm. How to move the stuff? Price cuts, plus increased bottling of straight whiskeys, have failed to make much of a dent. Now a new gimmick has been proposed: the Eberharter Bill, by which Congress would raise from eight years to 12 years the time that whiskey can sit in a warehouse before the distiller has to pay the \$10.50-a-gal. tax.

A good hefty chunk of the industry is plugging for the bill, though no action on it is expected this year. The measure would ease the aches of a distiller caught with big stocks of unsold eight-year-old whiskey. Now he would have to pay the tax while inventory just sat and shrank. Obviously, the bill would give him four years of grace.

• **Opposition**—Plenty of distillers do not go along with the bill though. Seagrams, the largest of all, is in sharp opposition. So is Brown-Forman. Lined up against them are Schenley (No. 2 in the industry), National Distillers (No. 3), and Publicker (No. 5). So far, fourth-place Hiram Walker has not taken a stand. But its inventory is believed to be comfortable, so it may end up in opposition.

The lineup seems to be pretty well on a stocks in hand basis. Thus Publicker has a big share of 1945-1946 whiskey in storage; Schenley holds the biggest part of the Maryland output for the same years.

• **"Plot" Charge**—Opponents of the Eberharter Bill have found their most vociferous spokesman in George Garvin Brown, president of Brown-Forman. Brown has charged that the whole situation of oversupply is a "planned emergency" to force the government to extend the period in which whiskey can lie untaxed in the warehouses. Brown says the purpose is to let the well-heeled large distillers increase their advantage over smaller competitors by permanently selling older whiskies in the 9-12 year range.

... AND MURRAY'S STRIKE ARE ...

Up to Congress

hopper before Maybank's was offered were written when seizure, not the strike, was the burning question. The Supreme Court's 6-3 decision holding the President's act illegal made the seizure issue more—but not completely—academic. Proponents of seizure point out that the High Court did not say that seizure was unconstitutional—only that the President had usurped the function of Congress in seizing without a law. If Congress wanted to pass such a law, the court left the impression it would meet the constitutional test.

• **Other Bills**—Seizure is one part of the Maybank bill. It is also the central feature, in providing the President with a seize-or-enjoin choice, in the Morse bill. Sen. Morse's proposal had some Administration backing when it was first introduced, but since labor leaders condemned it the Administration has perceptibly cooled. It may stand a new chance, however, if it can be amended some and offered as the Administration's alternative to the Maybank measure.

The Smith bill in the House (BW—May17'52, p164) seems almost sure, if passed, to draw a Truman veto. Although its proponents feel it could just squeak through Congress, if not bottled

up in the Senate Labor Committee, they doubt whether they have the two-thirds support necessary to override a veto.

• **Taft-Hartley**—Sen. Taft is taking the position that no legislation at all is necessary. He is expected to favor, if anything, the O'Connor resolution, which calls on the President to invoke the national-emergency-strike section of the Taft-Hartley act. Even should this resolution pass, however, it would be only advisory.

T-H gives the President the discretionary right to invoke or not invoke the law as he chooses. In view of Truman's position that the CIO has, in steel, already met all the restraining provisions of T-H (by postponing the strike for more than 80 days), it is likely that the resolution's "advice" would go unheeded.

And this is precisely why some of the staunchest defenders of the Taft-Hartley law are engaged in the search for new legislation. They are driven reluctantly to conclude that when a statute is so distasteful to the executive who has to use it and to the principal party (the union) that it would affect, it is too thin a reed to lean on in a time of crisis.

At Issue Again: How Much Arms?

● Debate has burst out despite Administration hope of holding it off till after election. The House proposal of a \$46-billion lid on military spending touched it off.

● Now it's a three-way tug of war among those who want faster arming, those who want to cut military budgets, and those who stick with the current program.

● The basic question: When is war most likely?

National defense—how much, how soon—is up in the air again.

Officially, the schedules set after the stretchout last winter (BW—Jan. 12 '52, p19) still stand. But now they're under attack from both sides—from the people who think they are dangerously low and from those who think they are unnecessarily high.

Nobody really wanted to reopen the issue until after the election. But the House appropriations committee touched off public debate when it voted a \$46-billion ceiling on military spending for this year.

Arguments over that proposal are a preview of the big policy debates that are sure to come either later this year or early in 1953.

• **Three-Way Wrangle**—The current furor involves much more than the usual pulling and hauling among branches of the military, or between the military chiefs and Congress. You can distinguish three separate viewpoints:

The "arsenal" group thinks the stretchout does the most important defense job in a time that is short of war: It builds up capacity to produce the most up-to-date weapons whenever they're needed (BW—Mar. 29 '52, p19). In this group are some top-level civilian officials in the Administration and the Pentagon.

The "weapons now" group wants to pull out all stops, prepare for war at any moment. In this group are some Army and Air Force generals, and civilians of the Bernard Baruch school of thought. Their watchword: We are fast losing the arms race.

The "economy" group, mostly congressmen, suspects the military chiefs of padding their budgets. It wants to squeeze defense spending down still further, stretch the buildup out over an even longer period.

• **Touchstone**—The real differences between one group and another show up in the answers they give to two basic questions:

- What are the odds that there will be a war with Russia?
- What kind of expenditure in

men and munitions would that war require?

I. The Odds on War

According to the "arsenal" group, the calculated risk taken in the defense program of a year and a half ago, and in last winter's stretchout, is still a risk worth taking. By 1954, they say, their program will wind up with a degree of munition production capacity that will satisfy even the "weapons now" people. They concede that all-out war may erupt in the meantime, but they feel the chance is worth taking in order to have the most modern weapons in time of need. They think if we make ourselves strong enough productively Russia wouldn't dare to push us into war.

The prophet for the "arsenal" group is Gen. George C. Marshall, who said in December, 1950, that productive capacity is worth more than arms in being.

• **Losing Ground**—The attitude of the "weapons now" faction was voiced by Baruch, Army Chief of Staff J. Lawton Collins, Air Force Gen. Nathan Twining, and others at hearings before Sen. Lyndon Johnson's committee on preparedness. It is this: We are nowhere near ready to fight a total war, and we're losing ground every day. Time will run out before the mobilization peak in 1954.

The "economy" group in Congress doesn't think there'll be war with Russia at all. Its advocates feel we're wasting our substance in military spending when we ought to be building up our civilian economy to withstand pressures from within. Congressmen have an eye on making a good showing with the home folks by limiting military spending—and taxes.

II. The Costs of War

You can't measure the extremes of military buildup as exemplified by viewpoints of the "weapons now" and the "economy" groups—the latter haven't blueprinted their views in

measurable goods. But you can compare the present calculated-risk program with the ideal as seen by the "weapons now" people.

• **Stretchout**—The present policy picks 1954 as the year of greatest peril from Russian aggression. It foresees a military mobilization by that time as follows: 4-million men in uniform, reserves of another 4-million, 24 Army divisions ready for action, 125 air wings, 1,200 ships, 16 naval air wings, three Marine divisions, three Marine air wings.

Mobilizers feel we don't have too far to go to reach this point of readiness, except in aircraft and in modernization of some equipment.

• **All-Out**—Another set of figures shows how wide is the gulf between this program and the ideal envisioned by the generals. It comes from a study to which the Joint Chiefs of Staff attached its name, but which was really compiled by the Munitions Board on the basis of what the chiefs thought they'd need in the first three years of total war:

About 100 Army divisions, 250 air wings, 2,000 Navy ships, 25 naval air wings, five Marine divisions, five Marine air wings.

• **Half a Trillion**—All this would cost around \$530-billion—more than half a trillion dollars. And this would be only for hard goods over a three-year period—soft goods would take another \$200-billion or so, and construction another \$100-billion. That adds up to around \$800-billion for three years.

Spending would build up from year to year, of course, as contracts went into action. On hard goods, it might break down thus: \$76-billion in the first year, \$150-billion in the second year, and \$304-billion in the third year. In the third, peak year, the military take would probably exceed two-thirds of the gross national product. This year it's just above 20%; in World War II the top was about 45%.

• **Different Conclusions**—The "arsenal" group contends that—even to fight a major war—the Joint Chiefs wouldn't need any such outlay. Civilian officials say the generals automatically build a 100% safety factor into their requirements—sometimes more.

As an example, they point to the ammunition situation in the last war. The generals order ammunition according to the rate-of-fire capabilities of all the guns on hand, with no allowance for those in storage or those in sites where they wouldn't likely be fired at full rate. The result was that only 20% of the ammunition bought was ever fired.

• **Economic Strain**—Aside from the unprecedented pull on gross national product, the Joint Chiefs' program calls

for demands on materials and manpower that civilian mobilizers say are impossible.

Defense Production Administration and the National Security Resources Board declare that there aren't enough raw materials in the whole world to satisfy some of the requirements, particularly in electronics and jet engines.

• **Metal and Men**—Metals experts say that, even if we cut the Joint Chiefs' program in half, it would take four times our present aluminum production to turn out the planes. We'd need twice as much production of special alloy steels to turn out half the jet engines in the all-out plan.

According to the mobilizers, we already have the plant and much of the product equipment to pour forth, say, ammunition in quantities approaching the Joint Chiefs' estimates. But we haven't the skilled workers. Ammunition plants are now working only one shift a day; they'd have to find the manpower for three shifts.

• **Essence**—The calculated risk backers don't question that a huge multiplying of production would be necessary in all-out war. They say that their policy, too, builds up the mobilization base, only not so fast. The time to open the throttle, they say, is when military and diplomatic experts agree we can no longer take even a calculated risk.

Rough and Tumble Competition

American Cyanamid is pulling no punches in the battle for two hot markets—acrylic fibers and soil looseners. Cyanamid controls the raw materials—at least for now.

Big companies these days not uncommonly follow pretty gentlemanly rules in sparring for the same market. Not so in the battle for Krilium and X-51. This week—although no one is talking—it looks as if American Cyanamid Co. is pushing every advantage it has to the limit.

American Cyanamid is the only producer of acrylonitrile—a chemical used in two sensational new products: a family of synthetic fibers and a recently developed type of soil conditioner.

• **Supplier-User**—Cyanamid not only produces the acrylonitrile, but it manufactures and sells both the fiber, which it calls X-51, and the soil softener, which it calls Aerotil. It needs part of its acrylonitrile to make these products.

So do its competitors. Its biggest sparring-mate for X-51 is Chemstrand Corp., owned by American Viscose Corp. and Monsanto Chemical Co. Chemstrand has a big new fiber plant almost completed at Decatur, Ala.,

where it will make its acrylic fiber, Acrilan. Union Carbide & Carbon also produces an acrylic fiber called Dynel, has a new \$30-million plant building at Spray, N. C. Still another maker of acrylic fibers is du Pont, with Orlon.

• **Below the Belt?**—Up to now, these companies have been pretty dependent on American Cyanamid for their raw material. If Cyanamid should suddenly decide not to supply acrylonitrile, they would be in trouble. That's exactly what happened. American Cyanamid suddenly announced it was halting all shipments of acrylonitrile to Monsanto.

At worst, the effect is a stunning but temporary delay. Chemstrand, Monsanto's subsidiary, has some acrylonitrile on hand. But the cutoff may hold up the start of its Decatur plant, where the fiber machines will be ready to run by July.

• **Turning the Tables**—Meanwhile, Monsanto is building its own acrylonitrile plant in Texas City, which will eventually supply all of Chemstrand's needs. The new \$26-million plant will use a different method from the one Cyanamid has been using.

Nion Carbide, too, is planning large-scale production of acrylonitrile, both for its own needs and for sale to other companies.

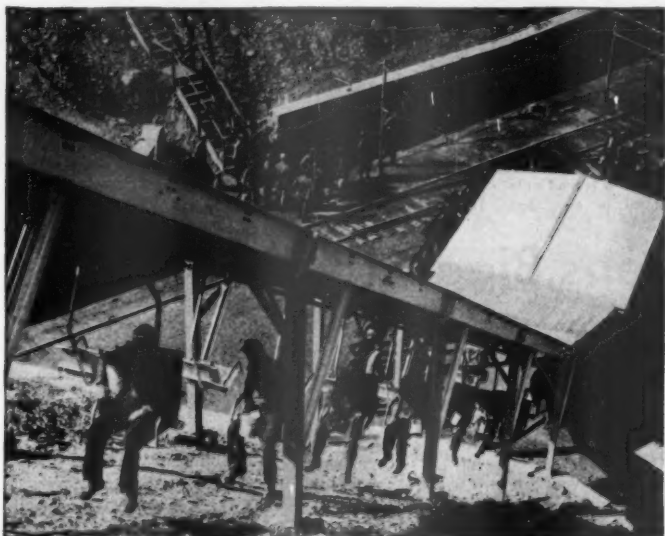
What all this means is that American Cyanamid won't be the sole producer of acrylonitrile for very long.

• **Neck and Neck**—American Cyanamid and Monsanto are in bitter competition, too, over the new soil conditioner that is just being rushed onto the market (page 38). American Cyanamid's Aerotil definitely comes from acrylonitrile.

When Monsanto first came out with its soil conditioner, Krilium, it was cagey about composition, but seemed to identify it as using acrylonitrile. Since Cyanamid stopped shipments, it has announced it can make a better formulation without acrylonitrile.

• **Why?**—Several possible explanations of Cyanamid's surprise move are being bantered round in the trade. One is that American Cyanamid wanted a long-term contract from Monsanto to supply acrylonitrile. But Monsanto, with its own plant in process, wouldn't sign.

Another possibility is that Cyanamid wanted to delay Monsanto so that it could get first shot at the market for soil conditioners based on acrylonitrile, at the same time delaying volume production of Acrilan at Decatur.



Ski Hoist Goes to Work in the Mines

U. S. Steel boasts that everything is the newest and best at its Gary No. 14 mine in West Virginia. One of the fanciest bits of mechanization is a ski hoist, which carries miners up and down a 70-ft. cliff

separating two levels of the Pocahontas coal seam. Gary No. 14 is already producing 4,000 tons a day of high-grade metallurgical coal, will reach 10,000 tons a day when development work is completed.



1,600 ACRES

Greater Pittsburgh Airport is second only to New York's Idlewild in area, and

its \$94-million terminal building is second to none in size or facilities. Air view shows some of the visitors at the dedication.

Pittsburgh Opens Biggest Inland Airport



BOSS of the new airport is Cliff Ball, old-time mail pilot.

Pittsburgh has outgrown two airports in 28 years, but it doesn't expect its new \$33-million Greater Pittsburgh Airport to be pinched for space in our time. The port, dedicated last week, is bigger than any other field except Idlewild, and it's designed to expand within the present site.

The new site is in Allegheny County, 14 mi. west of downtown Pittsburgh. A parkway to give 20-min. service to the airport will be finished next year.

• **Runways**—Design of the runways already embodies some of the recommendations of the Doolittle committee on airport safety (BW—May 24 '52, p34). Two of the three long runways have normal approaches over thinly settled country. The main east-west runway,

5,500 ft. long, has 2,500 ft. of extensions, and the 5,900-ft. northwest-southeast runway has a 300-ft. extension. The vicinity is being zoned to eliminate power lines, stacks, and other hazards to flying.

• **Terminal**—The pride of Pittsburgh, however, is the \$94-million terminal, by far the largest and most modern in the nation. Close to 14-million passengers are expected in the first year, as operations are moved from the old County Airport. In 1960 passengers are expected to total 24-million. The five-floor building can now dock 16 planes at once, with driveways to within 225 ft. of the planes. There's parking space for 1,290 cars, with another 1,250-car lot under way.



MOVIE STARS arrive to help dedicate the new port, with a press agent trying to whip up enthusiasm from spectators on the observation deck. Premiere of a film about Stephen Foster was a feature of city's big week.



PILOT gets this view of the longest runway as he approaches.



TRAFFIC is directed from tower enclosed in tinted glass.



HOTEL at port has 62 rooms. Air hostess unpacks between flights.

Moving In on the Tidelands

Truman ready to set up federal control over coastal oil fields if Senate upholds his veto of bill to restore them to the states. House sure to override.

President Truman is getting ready to place the so-called tidelands under federal control and management. There's a huge if, though: He can't act unless the Senate, as expected, sustains his veto of the latest attempt by Congress to turn the undersea territory back to the coastal states.

The House will take up the measure soon, maybe this week, and is certain to override. After that, it will be up to the Senate, on what is expected to be a very close vote. If the Senate overrides, too, obviously, Truman will draw no further cards in the tidelands. It would then be up to the states to license drilling and exploration.

• **Court Rulings**—The Supreme Court in three decisions has ruled that the U. S. has "paramount power" over the off-shore submerged lands of California, Texas, and Louisiana. But it did not grant absolute title to these lands to the federal government. As a result, for nearly two years, major oil companies holding state leases in the Gulf of Mexico have halted all exploration and drilling there. The Gulf remains probably the most promising area in the U. S. that is not yet in oil and gas production.

Although oil companies have spent more than \$250-million, virtually no production has been developed. Nevertheless, geologists insist that one of the world's largest fields underlies the Gulf. Oil companies are willing to go ahead with exploration and drilling once they are sure their leases, whether federal or state, are valid.

• **Existing Laws**—Truman and his official family in the past have publicly stated that federal ownership of the tidelands would have to be ratified by Congress, despite the Supreme Court decisions. But they now believe that executive action to assert this ownership can be taken under existing legislation.

The legal experts have been studying federal statutes to determine which law might give them the authority to issue federal drilling leases in the off-shore lands without a specific act of Congress. Most likely candidate is the 1950 Surplus Property Act. Through this law, by the plans of administration authorities, Truman can declare the tidelands federal surplus property and authorize Secretary of Interior Oscar Chapman to dispose of the lands as he sees fit. With this authority, Chapman can proceed with the confirmation of

existing state leases or the issuance of new federal ones.

• **Companies Willing**—Such an order will almost certainly be challenged in the courts. But most oil companies that already hold leases appear willing to accept such federal leases even though not specifically authorized by Congress. They take the position that such an offer, if it coincides with the lease already issued by the state, would

amply protect the company's interest.

Even if the 83rd Congress should restore the tidelands to the states, officials of the companies feel that since their leases would be identical from both the federal and state governments they could proceed with drilling and development even if Congress should eventually restore the tidelands to the states.

All such drilling and exploration stopped shortly after the Texas and Louisiana decisions by the Supreme Court in 1950. In California, new drilling was halted after the 1947 decision. But this last had only a slight effect on total oil production since most of the producing areas off the California coast were already in production.



PAUL S. GEROT



CHARLES H. BELL

Younger Men Take Over Flour Mills

Two of the country's biggest milling companies have new presidents this week, both under 50 years old.

Charles H. Bell, 44 (above, right), took over as head of General Mills, Inc. He succeeded Leslie N. Perrin, who resigned after reaching the 65-year retirement age. Perrin stays on as a director.

Paul S. Gerot, 49 (above, left), was named new top operating man for Pillsbury Mills, Inc. He replaces Philip W. Pillsbury, also 49, who moves ahead to chairman of the board in place of his uncle, John S. Pillsbury, now honorary chairman.

The executive changes are a switch for both companies.

For General Mills, it means another of the Bell family gets the top spot in the big flour firm. Bell is the third generation of his milling family to run General Mills or a predecessor company.

For Pillsbury, the top operating job now shifts from a fourth-generation

Pillsbury to an outsider who worked his way through the ranks, mostly on the sales side. Gerot gets credit for Pillsbury's move into home-baking mixes, where the company is now a leader.

General Mills, Inc., is by far the bigger of the two companies. Its sales were close to \$450-million in 1951. Pillsbury was second with a 1951 volume topping \$200-million.

With Gerot at the helm, it appears certain that Pillsbury intends to stay within the food field. Last year the company added to its line by buying out a southeastern milling firm, makers of Oven Ready Biscuits. It was Gerot who engineered Pillsbury's annual bake-off contest at the Waldorf Astoria in New York.

General Mills, Inc., on the other hand, has branched out into other fields than food, making electric irons and toasters plus precision instruments for the armed forces.



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man calling to report
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1951 NET PROFIT EXCEEDS PREVIOUS YEAR'S SALES

Expansion and modernization of equipment does not necessarily produce a profit . . . as a midwestern manufacturer recently found. This long established company, through modernization of one of its divisions in 1949, had created productive capacity considerably in excess of its own needs.

This unused capacity meant heavy carrying charges, causing a large and continuing loss in the division. Attempts to secure additional outside business failed to bring in sufficient volume to put the operation in the black.

Early in 1950, Trundle Engineers were called in to make a market study. During the course of this study, Trundle research men found numerous potential customers practically in the company's "back yard". Some were actively looking for a new source of supply. In fact, a number even tried to place orders with the Trundle representative.

Based on this market study, a detailed sales program was recommended by Trundle—involving territories, coverage and sales controls—and put into effect during the balance of 1950. *Result: 1951 net profit of the department exceeded its total sales volume for 1950 or 1949.*

Trundle works as a "team" with your executive staff—on problems involving Management Methods, Marketing, Manufacturing, Engineering and Industrial Relation functions. May we give you more information on whom we serve, and how we might serve your company? Write or phone The Trundle Engineering Co., 928 Bulkley Building, Cleveland 15, Ohio.

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33 YEARS OF CONSULTING SERVICE FOR MANAGEMENT

BUSINESS BRIEFS

State and municipal movie censors (BW—May31'52,p33) were further hobbled this week when the Supreme Court nullified a censorship ordinance of Marshall, Tex. The court said a film can't be barred merely because it's deemed "prejudicial to the best interests" of the city. *Pinky*, a film on the racial problem, was the movie at issue.

The midsummer sale of Sears, Roebuck & Co. offers price cuts on 36,000 items in the catalog mailed this week. Mark-downs range up to 30%, heaviest in apparel and appliances.

You can write a best-selling novel and yet not be a professional writer, a federal court of claims ruled this week. The court found that Kathleen Winsor wrote *Forever Amber* and *Star Money* just for fun and should have paid only capital gains tax on sale of movie rights to the former book. It meant refunds of \$26,385.72 each to Miss Winsor and her ex-husband.

New York Central R. R. trimmed some of the Victorian gingerbread-work from its corporate structure last week by absorbing West Shore R. R. Co. and six other small subsidiaries.

Justice Dept. filed a triple-damage suit at Wilmington, Del., against General Motors Corp. for \$404,973.84. It charged violation of the Elkins Act prohibiting concealed rebates from carriers. According to the complaint, GM bought the site of its Wilmington assembly plant from the B&O for \$150,000 after the railroad had acquired it for about \$289,000.

Scholarship funds of \$1,000 for each of the 72 accredited medical schools in the U.S. are being provided by Chas. Pfizer Co., Brooklyn chemical and pharmaceutical company.

New York transit: The city will act June 30 on accepting an offer of New York City Omnibus Co. of \$350,000 a year for city-owned bus routes that have lost approximately \$300,000 this year (BW—May10'52,p36). . . . Staten Island Rapid Transit Railway Co., a B&O subsidiary, seeks to discontinue all passenger service, used by 12,000 commuters a day.

Management of Welch Grape Juice Co. of Westfield, N. Y., and officers of the National Grape Cooperative Assn., Inc., have agreed on sale of Welch properties to the 4,000 growers for \$15-million, payable out of profits.

working on Aircraft Contracts?



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MARKETING



OVER-THE-COUNTER sales of Monsanto's soil conditioner, Krilium, at Famous-Barr, St. Louis, came months ahead of schedule.

Monsanto: Head Over Heels Into R

Launching a brand-new product is a three-ring circus under any circumstances. It's more exciting if the product looks hot as a coal stove in January. And it's triply exciting if you are an industrial company that is moving into the big-league consumer market for the first time.

Monsanto Chemical Co. has had the excitement all three ways. Right now it is in the throes of a headlong campaign to launch Krilium, its widely publicized chemical soil conditioner (BW-Jan.19'52,p107). Months ahead of its original schedule, it is chin deep in consumer merchandising, for the first time on a national basis. And it's chin deep in all the stresses that a consumer merchandiser is heir to. There are even threats of a legal and industrial battle in the offing.

• **The Product**—It all started on Dec. 29 of last year, when Monsanto president Charles Allen Thomas told the world about Krilium. The stuff looked to be as strong medicine for soils as the wonder drugs are for people. A pale yellow plastic powder, it converts hard, clayey soils into porous, loamy earth. That's the kind of earth that gardens

and gardeners go for. It holds water without packing or mudding up, and it doesn't turn to brick when the soil dries out.

Preliminary tests indicated that poor soils, loosened up with Krilium, could increase their crop yield by as much as 50%.

• **The Plan**—Last December, however, Krilium wasn't anywhere near ready for the market. Or so Monsanto thought. Monsanto had never in its 51-year history marketed a consumer product nationally. So, mindful of all the work ahead, the company cautiously set early 1953 as the time to begin selling Krilium.

There were other problems. One was production capacity. Krilium was being produced at a pilot-plant rate. The only stuff going out was for scientific "cooperators," 85 of them scattered across the U.S.—at extension colleges, greenhouses, and arboretums. They were checking how the conditioner worked on everything from baseball diamonds to cornfields.

Monsanto's original plan was to keep on with the tests for a while, then stage a small marketing test in Texas or Cali-

fornia next fall. After that, it would line up its distributors and be in shape for 1953's gardeners.

• **New Timetable**—That's why, until late March or early April, there was no talk of selling Krilium this year. Then a lot of things happened, and Monsanto called a quick change of signals:

• Production had moved faster than Monsanto had expected. There was enough Krilium for the "Merloam formulation," for home gardeners and lawn tenders, though not enough for the big commercial users.

• The scientific cooperators had cooperated to such good purpose that Monsanto felt it knew what Krilium could do and what it couldn't do—at least for gardens.

• The competition had begun to crowd in. Monsanto officials insist that this wasn't a major factor in stepping up its program. But other companies were racing to get into the soil conditioner market. If Monsanto waited another year, Krilium would be just another entry. Besides, with every company, large and small, ready to leap, Monsanto feared some get-rich-quick operators would put out an inferior

Unusual "one-time-only" offer of



Krilium

SOIL CONDITIONER
Special MERLOAN Formulation
for Gardens, Lawns and Borders

Only one package to a family during this limited direct-selling introductory period



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Retailing

product and sour people on all soil conditioners.

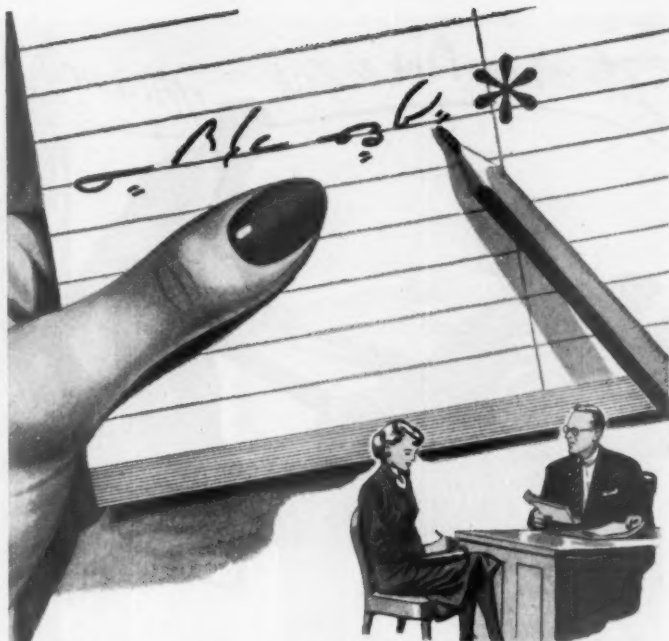
• **Ahead of Schedule**—Given all these considerations, Monsanto hastily revised its schedule. The result: On May 12 Krilium was on sale.

The six weeks preceding that date were a busy time. "A lot of people lost a lot of sleep," a Monsanto man commented. For by then the company was working not only against a host of incipient competitors, but against the changing seasons; the 1952 gardener was already digging.

Once Monsanto had elected to make the plunge, its first step was to hire the first "Mr. Retail Monsanto" the company had ever had. This was Roy L. Brandenburger, of Ralston Purina Co., who became assistant to Felix Williams, vice-president in charge of sales co-ordination.

Next step was the package. A series of conferences resulted in a five-lb., clay-red container, to sell for \$6.95.

• **Distributors No Problem**—There wasn't time to set up a national distributorship. For the time being, Monsanto contented itself with selling through dealers and distributors in St.



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NEKOOSA-EDWARDS PAPER CO. • PORT EDWARDS, WISCONSIN

There's an Art to desk efficiency



"Pull up a chair . . .
this is my new Art Metal Conference
Desk . . . I'm ready any minute
for a five-man meeting."

Yes sir! Our new Conference Desk has many fine points that aid ease, order and efficiency: a BIG pedestal (right or left side, as ordered) with drawer space virtually the same as a two-pedestal desk, three convenience drawers in desk top, two work-organizer desk-tray drawers, and large side-to-side vertical file drawer, plus private locker for storage. Pedestal drawers have Art Metal fingertip ball-bearing roller suspension. The Art Metal Conference Desk has baked enamel finish in gray, and warm gray linoleum top with aluminum trim—a desk built for action and styled for leadership.

EXECUTIVES: If you, like many others, are planning ahead for office improvements or expansion, write us for the booklet on Art Metal office equipment, including complete details on the Art Metal origination—the Conference Desk . . . Art Metal Construction Co., Jamestown, N. Y.

For over 60 years the hall-mark
of the finest in business equip-
ment . . . desks • files • office
chairs • visible record equipment.



Louis, its home town, and handling the rest of the country by mail order. As soon as its distributors are all set, it will sign off on the mail order business.

Finding distributors was no problem. Lots of dealers wrote in asking for the job. Late in May Monsanto had some 40 to 50 lined up, expected to have them all by early June. Macy's in New York was the first big department store outside St. Louis to offer Krilium. It had its first 10-case allotment flown to it by American Airlines the first week Krilium was on sale.

Monsanto's agency, Gardner Advertising Co., hurried out some advertisements. On May 7 and 8 the company ran 400-line ads in 40 major markets; they told people to watch their May 11 (Sunday) newspapers for an important announcement. Later on, when the distributorship is complete, the company will let loose 1,000-line ads in those same cities.

• **Merchandising Technique**—There's more to selling a brand-new product than there is to selling a new toothpaste, a Monsanto official points out. Everybody knows what to do with toothpaste. Krilium was another matter.

Monsanto got together a booklet for retail sales people to help them answer questions like "How deep shall I plant for my petunias?" "How will I repair bald spots on my lawn?" And it poured on the publicity—as it had ever since last December—to garden editors on how to apply the stuff (don't skimp on working it into the soil, Monsanto warns). The publicity was climaxed by an article in the current Reader's Digest, and a big color layout in Look magazine.

• **Competition Moves In**—For all Monsanto's hurry, the competitors got to the market first. Wilson Organic Chemicals, a small concern in Sayreville, N. J., beat Krilium to the shops by over a month with its Poly-Ack. Dreer's of Philadelphia brought out Fluffium two weeks later. Acrisoil Co. of Newark, N. J., offered Acrisoil. American Polymer came up with Agrilon (BW—May 24 '52, p.60). American Cyanamid, which provided the raw materials to many other companies, said it was ready on May 23 with its Aerotil, for either sprinkling or raking in. But it, like Goodrich Chemical, another big producer of raw materials, is selling to other manufacturers. And new ones are appearing every day. Du Pont has a conditioner in the works; Prentiss Drug has another.

One result has been price competition. Wilson and Dreer started at \$18 a gal. When Krilium came out at \$6.95 for five lb., Dreer almost halved its price, now is offering four lb. for \$5.50.

The soil conditioners are battling on



The Waldorf-Astoria

AS MAJESTIC AS PARK AVENUE...in New York

In New York—THE WALDORF-ASTORIA
THE PLAZA AND THE ROOSEVELT
In Chicago—THE CONRAD HILTON
AND THE PALMER HOUSE
In Washington, D. C.—THE MAYFLOWER
In Los Angeles—THE TOWN HOUSE
In St. Louis, Mo.—THE JEFFERSON
In Dayton, O.—THE DAYTON BILTMORE
In Fort Worth, El Paso, Lubbock, Texas—
THE HILTON HOTEL
In Albuquerque, New Mexico—
THE HILTON HOTEL
In San Bernardino, Calif.—
ARROWHEAD SPRINGS
In San Juan, Puerto Rico—
THE CARIBE HILTON
In Cebu, Cebu, Mexico—
THE PALACIO HILTON

Nowhere in the world is there a hotel that epitomizes living at its best as does The Waldorf-Astoria. It's as much a part of the New York scene—and of New York life—as smart Park Avenue. Cosmopolitan home of the great, the Waldorf's rich traditions, impeccable service and friendly hospitality are yours when in New York. Here also is the glamorous air-conditioned Starlight Roof.

Hilton  *Hotels*
ACROSS THE NATION
Conrad N. Hilton, President

EXECUTIVE OFFICES • THE CONRAD HILTON • CHICAGO 5, ILLINOIS



For concrete-on-wheels...



G-E 2-Way Radio boosts efficiency 75%

● In the ready-mixed concrete business, close timing of delivery is critically important. A big mixer carrying 6 yards of wet aggregate over a 25-mile haul, for example, must dump the load before the concrete sets. Delays are expensive when jobs are miles apart.

● At Rochester, N. Y., the Concrete Trans-Mix Corporation equips all 32 of its trucks with G-E 2-way radio, controlling them from headquarters with cost-trimming, time-saving precision. Contractor customers get fast service, re-routing is simplified. Radio helps bring in new business, too.

● If you need wide area control of vehicles or plant operations, why not talk to G-E communications engineers? General Electric radio systems are now improving the profit picture for scores of business operations. Yours may be among them. Mail the coupon today for additional information.



Breakdowns on isolated roads are no problem when driver has 2-way radio. Maintenance truck, responding to call, arrives in minutes.



Drivers report job requirements by radio, are in touch with office constantly. Radio simplifies scheduling, makes every hour pay.

How Much Does Instant Communication Mean To Your Business?

General Electric Company, Section 162-7
Electronics Park, Syracuse, New York
Please tell me how General Electric 2-Way Radio can help me.

NAME.....

TYPE OF BUSINESS.....

ADDRESS.....

CITY.....STATE.....

GENERAL  ELECTRIC

another front: the merits of the rake-in type against the sprinkler type. Monsanto insists that spraying, while easier, is less effective.

Another result may be brewing: a patent squabble. No one is sure when or whether this will break. Monsanto, though, has made it plain that it has filed for patents and "has taken legal steps to protect its position as originator and developer of the product."

• **New Formula**—One thing that complicates the patent question is the fact that today's Kriilium has a different base from the Kriilium that Monsanto first announced. The original conditioner was based in part on acrylonitrile—as are many of the other soil conditioners that have followed. But last week Monsanto said that Merloam does not have an acrylonitrile base any longer; it is Monsanto's modified vinyl acetate maleic acid.

The question of the formula is important for another reason. Last week American Cyanamid threw a small bomb that had the industry guessing, and buzzing. It announced it would no longer ship acrylonitrile—of which it says it is the sole producer—to Monsanto.

Monsanto says this doesn't bother it a bit as far as Kriilium is concerned. And anyhow, it is building its own acrylonitrile plant in Texas City, Tex. Whether an expected shutdown of supplies from American Cyanamid had anything to do with the switch in the Kriilium formula is anybody's guess. Monsanto insists it changed because it has something better, at least for the home garden. But trade circles are guessing that competition over soil conditioners entered the picture.

Meanwhile, Kriilium has won its major battle. It's on store shelves. Reports are that the public is now buying all the soil conditioners that it can lay its hands on. But not all dealers will say as much.

In St. Louis, dealers and distributors feel Kriilium is working against a double disadvantage: (1) It came on the market after the gardening season had started; and (2) its price stops a lot of buyers. Macy's, however, sold out their first 10 cases by 10 a.m. the morning after it advertised the stuff.

• **Regional Sales**—Monsanto has sold two other consumer products regionally. One is Rez, a primer and scaler, that started on the West Coast and is working east. The other is Eskimo antifreeze, sold only in New England.

Now that it's started on Kriilium, it seems likely it won't stop there. Only last week the company upgraded Brandenburger to the head of a new division, the merchandising division. "If we bump into any more Kriiliums," says a Monsanto spokesman, "we'll have a basket to put them in."



Safety Tips for Vacation Trips

NOW THAT VACATION TIME has come, many motorists will follow the natural urge to take to the open road. Whether they go on a vacation or week-end trip, or just for a drive in the country, they will find motoring most pleasant when it is safest.

According to National Safety Council data, motor vehicle accidents accounted for 40 percent of all deaths from accidental causes, and injured more than a million people last year. Safety authorities say that a good way to make your summer trips more pleasant as well as safer is to follow such motoring precautions as these:

1. Always drive at a safe and sane speed. Reports of state and city traffic authorities show that in 2 out of every 5 fatal accidents, a speed violation was involved. That is why it is so important to drive at a speed which gives you complete control of your car at all times.

2. Follow other cars at a safe distance. According to the National Safety Council,

even when going only 30 miles per hour, under normal conditions, it would take you about 80 feet to come to a complete stop. This emphasizes the need of allowing ample stopping room between your car and the car ahead. A safe margin is one car length for every 10 miles of speed. Of course, this distance should be increased at night, and when driving on slippery roads or in bad weather.

3. Keep constantly alert to other cars on the road. This may help you avoid an accident, even if their drivers do something wrong. For example, by watching traffic coming from both left and right when nearing an intersection, you may be able to anticipate and avert possible danger. For the same reason, it is wise to pay attention to traffic coming toward you at all times, and especially on hills and curves.

4. Be prepared for driving emergencies. Should a tire blow out, keep a firm grip on the wheel with both hands and let

the car slow down before applying the brakes. This will help prevent dangerous swerving. When stopping on a slippery surface, apply your brakes lightly, then release and apply again to help avoid skidding.

5. Have your car's condition checked regularly. Traffic reports show that vehicle defects are contributing causes in about 1 out of every 9 fatal accidents. Defective brakes, lights, tires and steering mechanisms are most frequently at fault. Every part of your car should be periodically checked to make sure it is in safe operating condition. Such inspection is especially important before taking a trip.

Metropolitan has prepared a booklet, "How's Your Driving?" to help you increase the pleasure and safety of your motoring. This booklet contains many practical comments and suggestions that tell how to drive with the least amount of worry and trouble. Use the coupon below to send for your free copy.

Metropolitan Life Insurance Company
(A MUTUAL COMPANY)

1 Madison Avenue, New York 10, N. Y.



Please send me a copy
of your booklet, 752-S,
"How's Your Driving?"

Name _____
Street _____
City _____ State _____





BUILT



TO SERVE BETTER AND LONGER

DEPENDABILITY is the first essential in buying a crane of any type or capacity. Because we have always produced load-handling equipment *exclusively*, you can trust "Shaw-Box" Cranes to give unflinching performance.

RUGGEDNESS is basic in all "Shaw-Box" Cranes. More than 60 years devoted to crane engineering research, development and manufacture are your assurance of enduring stamina.

UNIQUE FEATURES, built into all "Shaw-Box" Cranes, contribute appreciably to their unmatched load-handling economy and maintenance convenience.

COMPLETE PROTECTION for man, load and crane is engineered into every "Shaw-Box" Crane to provide continuous operation in the severest service.

FOR MANY YEARS "Shaw-Box" Cranes have been serving and saving for railroads, electric utilities and hundreds of other industries. They can do the same for you, whether you handle loads of 500 lbs., 300 tons, or more.

WHATEVER YOUR NEEDS—today or tomorrow—select a dependable "Shaw-Box" Crane. Write for Catalog 219 showing "Shaw-Box" Full Electric Traveling Cranes from 5 tons up; Catalog 218 for 'Load Lifter' Cranes from 1 to 25 tons.



"Shaw-Box" CRANES

MANNING, MAXWELL & MOORE, INC. Muskegon, Michigan
Builders of "Shaw-Box" Cranes, 'Budgit' and 'Load Lifter' Hoists and other lifting specialties. Makers of 'Ashcroft' Gauges, 'Hancock' Valves, 'Consolidated' Safety and Relief Valves, and 'American' Industrial Instruments.

Door to Door . . .

. . . men have done all
Electrolux's selling in the past.
Now the company plans to
advertise nationally.

For 27 years Electrolux Corp. has been promoting its vacuum cleaners exclusively through door-to-door salesmen. That era will draw to a close this year. The company announced last week that, very shortly, it's going to start national advertising.

Electrolux has two reasons for the move: (1) It wants to give its salesmen something to lean against besides bell buttons, and (2) it wants to introduce, on a national scale, a new super-duper vacuum cleaner.

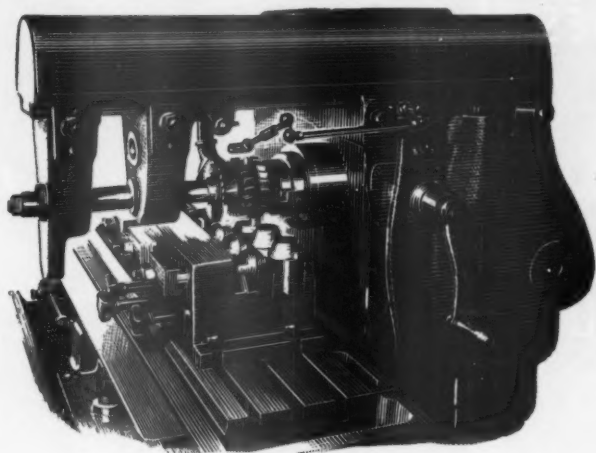
• **Bell Worshippers**—None of this means that the company's door-to-door men are falling from grace. Mention doorbells to an Electrolux executive, and his tone will die to a reverent whisper. Solely through this type of selling, the company has built its annual sales volume to \$70-million—more than that of any other outfit in the field.

"On any morning," says old-time salesman Mart Manly, now assistant to Electrolux's vice-president, "thousands of people will wake up without the remotest intention of buying a vacuum cleaner. By nightfall they'll all own an Electrolux." It's the personal selling that does it, Manly believes.

• **The New Machine**—Still, the company has no gripe against advertising where it serves a useful purpose. In the case of the new vacuum cleaner Electrolux is about to introduce, advertising will serve to get the housewife acquainted with it before the salesman calls. Thus, she won't regard it as an entirely new and untried product. Furthermore, the advertising will undoubtedly pull a certain number of housewives direct to Electrolux retail stores (the company does its own distributing and retailing), adding more sales to the already big volume of the door-to-door men.

Electrolux's new machine, named Model 60, has one special gimmick that will be promoted to the hilt: It automatically seals and ejects an inner paper-and-latex bag as soon as the bag fills up with dirt. Other gimmicks include a self-winding extension cord, attachments for various types of rug. The cleaner will retail for \$114.20. Electrolux's current machine, Model 30, sells at \$77.50.

Along with its sally into national advertising, Electrolux intends to increase the size of its door-to-door army and the number of its retail outlets.



How **MODERN REFRIGERATION** increases life of cutting tools

CAN IT HELP YOU, TOO?

Hundreds of manufacturers now use cold-treating techniques in production operations. To illustrate: by chilling steel cutters in sub-zero cabinets where the temperature is held at -150F., the metal undergoes a complete transformation impossible by any other method of treatment.

Cutters become hardened . . . are given greater strength. Their useful life is raised from 7 to 24 hours of continuous service, an increase of 243%. Production steps up . . . operating costs are reduced . . . and product quality is improved.

Today, executives in many fields have found there are scores of profitable industrial applications for modern refrigeration and air conditioning. Why not look into the subject yourself? Review it with your engineers. Analysis may indicate practical applications that could cut costs, boost production, improve your product, promote morale, increase profits.

And in considering equipment for air conditioning and refrigeration systems . . . keep well in mind that most modern installations are operated with "Freon" refrigerants. These

refrigerants are safe . . . noncombustible, nonexplosive, virtually nontoxic, and their chemical purity insures economical operation of the system over a long period of time.

For further information on how refrigeration may help you, write for new booklet: "How Air Conditioning and Refrigeration Benefit Industry." E. I. du Pont de Nemours & Co. (Inc.), "Kinetic" Chemicals Division, 7524 Nemours Building, Wilmington 98, Delaware.



150th Anniversary
BETTER THINGS FOR BETTER LIVING
... THROUGH CHEMISTRY



"Freon" is Du Pont's registered trade-mark for its fluorinated hydrocarbon refrigerants.

"FREON" SAFE REFRIGERANTS

AMERICAN INDUSTRIES

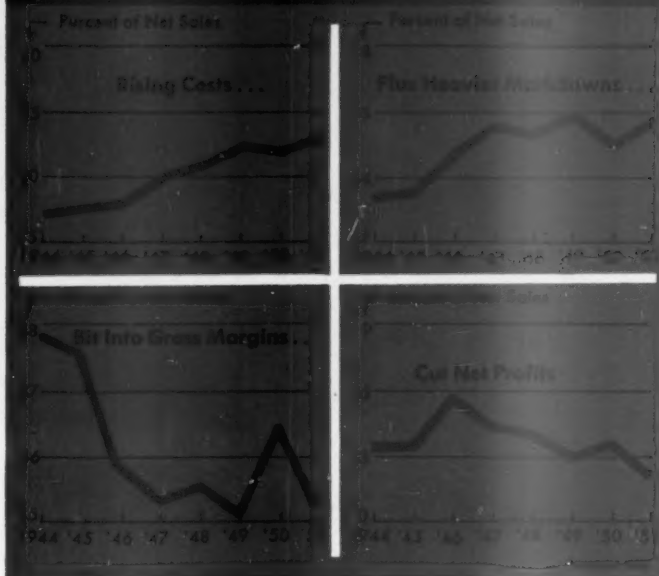
USE
Pick
INSTANTANEOUS
WATER HEATERS

- UNITED STATES STEEL CO.
- BETHLEHEM STEEL CORP.
- JONES & LAUGHLIN
- FORD MOTOR CO.
- PEPPERELL MFG. CO.
- H. J. HEINZ
- NATIONAL DAIRIES
- WILSON & CO.

PROCESS
HOT WATER
INSTANTLY
in
VOLUME NEEDED
at
TEMPERATURE
REQUIRED

Pick
MANUFACTURING
COMPANY
WEST BEND, WISCONSIN

Department Store Blues



Red-Ink Handwriting on the Wall

For department stores, 1951 was an ominous year, and 1952 doesn't yet look a whole lot happier.

The merchants and the economists guessed wrong last year; the consumers guessed right. Storekeepers and their advisers bet on more inflation, fewer goods, keen demand. Consumers bet on goods aplenty—and doubled their rate of saving, instead of buying.

That's how Dr. Malcolm McNair of the Harvard Graduate School of Business Administration summed up the retail year when he addressed the Controllers' Congress of the National Retail Dry Goods Assn. last week. In net after taxes, department stores had it worse than almost any other business in 1951, Dr. McNair says. Their 1.7% gain in dollar sales was far too small to offset other adverse factors.

• **Four Uneasy Steps**—As Dr. McNair tells it—and the charts above illustrate—this is what happened:

(1) Costs kept climbing to a postwar peak of 33.2% of net sales.

(2) Slow sales, overstocked inventories led to heavier markdowns: 5.58% of net sales, compared with 3.5% in 1944.

(3) Gross margins then had nowhere to go but down. The 35.3% for the year was only a bit ahead of the 35.2% in 1949—and that was the worst since 1938.

(4) After taxes, that leaves net earnings of 2.3%, lowest since 1938.

One measure of how costs are rising is this: In 1939 the payroll dollar covered 2.99 transactions; in 1951 it covered only 1.38 transactions.

• **Drab Future**—Dr. McNair sees little hope of improvement in dollar volume this summer. Consumers are still clinging to their cash, and prices are still lagging.

But he thinks a lot of stores may wind up with better profits than in the corresponding periods of first-half 1951 (BW—Feb. 2 '52, p. 102). Expenses are under better control. Markdowns, too, are a bit easier. The big question now: Are stores really over their inventory hump?

For the fall, Dr. McNair speaks even more cautiously. Even if defense spending stays high, it's a \$50-billion small potato, compared with consumer spending of more than \$200-billion. If plant expansion and construction fall off and consumers keep up their dollar-squirreling, we may have a "substantial recession," says Dr. McNair, despite government outlays. The retailer, however, may not feel it till the end of the year, he thinks.

OUR SCRAP CAME BACK TO US...

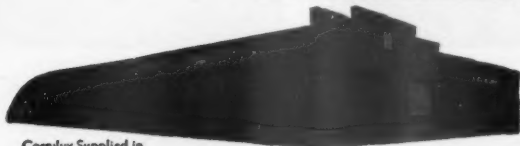


...BUT WERE THE KIDS SURPRISED ONE NIGHT WHEN THE SCRAP STARTED BOUNCING BACK

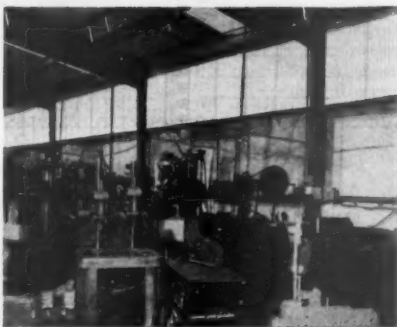
"Sure, Cleveland kids make great ball players, but using our windows as home plate ran building maintenance costs sky high," says Paul Schreck, vice-president of Moto-Truc Co. of Cleveland, Ohio . . . "Night after night, the same thing—windows shattered and broken all over the plant until we began replacing our ordinary glazing with shatterproof Corrugulux. Now we are replacing all glazing with Corrugulux and we have no more broken windows or skylights. In addition, we get softer, diffused light which reduces eye fatigue and increases efficiency in our machine shop."

When you stop to figure how much it *really* costs to replace a broken lighting panel—including writing an order, scaffolding, maintenance orders, invoices, etc.—you'll find that it pays to specify CORRULUX skylights and window panes.

If you're buying daylight, insist on
"CORRULUX-80" and get the most
for your money!



Corrugulux Supplied in
Cleveland by Republic
Structural Iron Works



- LOW, FIRST COST
- NO MAINTENANCE
- BETTER QUALITY LIGHT

For further information
write

Corrugulux Corp.
Houston 25, Texas

Distributors in Principal Cities

Looking for better ways to do things? We can help

Our booklet tells you more than this ad



HARTFORD-EMPIRE CO.
HARTFORD 2, CONNECTICUT

Please send literature checked below:

- ☐ "How Emhart Can Help"
☐ "Batch Charging Systems"
☐ "Ladle Loaders"
☐ "Annealing and Decorating Lathes"
☐ "Glass Making Equipment and Services"

NAME _____
TITLE _____
COMPANY _____
ADDRESS _____
CITY & STATE _____

PRECISION UNDER INFERNAL CONDITIONS

Molten gobs of glass dart into Hartford-Empire forming machines with projectile-like speed. This continuous and orderly barrage of hot "shots" is quickly converted into bottles at rates up to 125 per minute. These machines exemplify Hartford-Empire's known ability to design and build equipment for sustained operation under gruelling conditions.

HARTFORD-EMPIRE CO.
Division of Emhart Mfg. Co.
HARTFORD 2, CONNECTICUT



STANDARD-KNAPP
PORTLAND, CONNECTICUT

Please send literature checked below:

- ☐ "How Emhart Can Help"
☐ "Bottle and Can Packers"
☐ "Carton and Bag Packers"
☐ "Lathes"
☐ "Givers and Sealers"
☐ "Automatic Cartoning Units"
☐ "Palletizers and De-palletizers"

NAME _____
TITLE _____
COMPANY _____
ADDRESS _____
CITY & STATE _____



SAVINGS IN SHIPPING PREPARATIONS

Shipping cases come out of Standard-Knapp equipment with proper seals and protection of product. Many models available to improve your shipping case handling and make it less costly. Other Standard-Knapp machines reduce the cost of cartoning, labeling, rinsing, packing, conveying, palletizing and de-palletizing.

STANDARD-KNAPP
Division of Emhart Mfg. Co.
PORTLAND, CONNECTICUT

EMHART MFG. CO.

Only the best is good enough



BASHED BUT NOT SMASHED

New 6½ and 13 gal. plastic carboy bottles developed by Plax solve age-old problem of shipping corrosive chemicals safely and conveniently. Blow-molded in one piece of polyethylene, they are unbreakable, light in weight, chemically inert and will not crack if contents are frozen. Smaller Plax® plastic bottles are already being used for hundreds of consumer and industrial products.

PLAX CORPORATION
Subsidiary of Emhart Mfg. Co.
HARTFORD 1, CONNECTICUT



PLAX CORPORATION
HARTFORD 1, CONNECTICUT

Please send literature checked below:

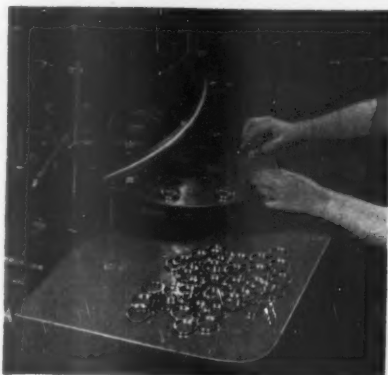
- ☐ "How Emhart Can Help"
☐ "Plaxpak Polyethylene Bottles"
☐ "Fabricating of Polyethylene"
☐ "Plastics for Industrial Use"

NAME _____
TITLE _____
COMPANY _____
ADDRESS _____
CITY & STATE _____

BOOSTING PRODUCTION REDUCING INSURANCE

Hands are always out of the danger zone in power press operation with the V & O Feed-O-Matic®. Parts are fed into press by mechanical hand. Operators simply place parts in nests on small rotating dial. Result: simpler, less fatiguing motions for operator; more parts; no accidents; lower compensation rates.

THE V & O PRESS CO.
Division of Emhart Mfg. Co.
400 Union Turnpike, HUDSON, NEW YORK



THE V & O PRESS CO.
400 Union Turnpike
HUDSON, NEW YORK

Please send literature checked below:

- ☐ "How Emhart Can Help"
☐ "Inclinable Open Back Presses"
☐ "Punch Press Feeders"
☐ "High Speed Hetchers"
☐ "Herring and Wiring Presses"
☐ "Roll and Dial Feeds"

NAME _____
TITLE _____
COMPANY _____
ADDRESS _____
CITY & STATE _____



ELECTRONICS SOLVES MYSTERY

New Henry & Wright electronic instrument accurately and instantly measures power press loads. Takes mystery out of what is happening during press operation; shuts press down instantly if overloaded. Dieometer's information permits improved metal stamping operations, elimination of expensive press and die damage and consequent lost production time.

HENRY & WRIGHT
Division of Emhart Mfg. Co.
510 Windsor Street, HARTFORD 5, CONN.



HENRY & WRIGHT
510 Windsor Street
HARTFORD 5, CONNECTICUT

Please send literature checked below:

- ☐ "How Emhart Can Help"
☐ "Dieing Machines Catalog"
☐ "Examples of Progressive Dieing"

NAME _____
TITLE _____
COMPANY _____
ADDRESS _____
CITY & STATE _____

OUR BOOKLET, "HOW EMHART CAN HELP" is available from any of the member companies. It demonstrates the design, development, and

production skills here—clearly shows the unique combination of experience and know-how that you can put to use, no matter what you make.

There's Something *New* on the Rails...

GREEN and GOLD BOX CARS of the M. & St. L.

Green Cars with Gold Markings!

For more than a Century, since freight first rolled on a Railroad in a "closed car," roofed and walled to protect the shipment, Box Cars have been Red. "Box Car Red" is a tradition, like "the little red schoolhouse."

Today, some 750,000 Box Cars are at work on American Railways. Practically all of them are Red. True, there are about 130,000 "reefers," mostly yellow or orange, the "closed cars" that are refrigerated

to safeguard perishable freight.

But Box Cars have been Red until just now, when Something New appeared on

The MINNEAPOLIS & ST. LOUIS Railway

700 Shining New Cars, each a rich dark green with bright golden markings, have been added to the fleet of M. & St. L. Box Cars already in service. Each is of 50 tons capacity, all-steel and modern in design and construction, like other equipment on the Diesel-Powered M. & St. L.

The MINNEAPOLIS & ST. LOUIS Railway



**HOW NOX-RUST VAPOR-WRAPPER
SAVES \$15,000 PER YEAR FOR A
LEADING MANUFACTURER***

Through use of an amazing new rust-preventive product... Nox-Rust Vapor-Wrapper... one of America's leading manufacturers* estimates that it has saved over \$15,000 each year for the last two years in packaging costs alone. What's more, approximately 6,250 man-hours per year have been saved in the elimination of previous preservative packaging methods. Units now packaged in Vapor-Wrapper arrive clean, "factory-fresh," rust-free and ready for instant use. Thus, large savings in set-up time are made possible.

* Name on request

Vapor-Wrapper eliminates the need for application and removal of messy, old-fashioned rust-preventive coatings. Because of this fact, leading makers of automotive and aeronautical parts and equipment as well as other vital segments of the metal-working industry have switched to Vapor-Wrapper. For details on how your firm can benefit with Vapor-Wrapper, just mail the coupon below.

CAUTION: Only Nox-Rust makes the exclusive new Vapor-Wrapper that's impregnated with Collex... the patented VOLATILE CORROSION INHIBITOR. (U. S. Patents 2,521,311—2,534,301—other patents pending)

**Just Mail This Coupon (Please attach to your letterhead)
NOX-RUST CHEMICAL CORPORATION**

2481 South Halsted • Chicago 8, Ill.
Detroit • Baltimore • Philadelphia • San Francisco
Los Angeles

NOX-RUST Chemical Corporation

2481 South Halsted • Chicago 8, Illinois

Please send me full information on how my firm

can benefit through use of Vapor-Wrapper.

Your Name _____

Address _____

(If different from letterhead)

City _____ State _____

Unit Rates Barred

Times-Picayune will appeal court ruling that it can't compel advertisers to buy space in both its daily papers.

Newspaper advertisers got a break last week in what may prove a far-reaching verdict against the Times-Picayune Publishing Co., New Orleans. U. S. District Judge Herbert Christenberry ruled that the company violated the Sherman Antitrust Act by making national and classified advertisers buy space in its afternoon paper, the New Orleans States, if they wanted space in its morning paper, the Times-Picayune. This practice, the court said, hurt the New Orleans Item, a competing afternoon publication.

Both newspaper and advertising men were cautious in saying just how widespread the effects of the ruling will be. But they agreed that probably it will have considerable effect—if the Supreme Court, to which Times-Picayune is appealing, upholds Christenberry's verdict.

• **Monopoly Charge**—The judge said that the Times-Picayune (with a weekday circulation of 171,000 and a Sunday circulation of 273,000) enjoyed a "monopoly position" in the morning field. Anyone who wanted to cover the New Orleans market had to use its pages. The terms prevented freedom of choice as between the morning and the afternoon publication, and also between the afternoon publication and the Item, the only afternoon competitor. The court pointed out that, before the unit rate went into effect, the Times-Picayune had over 50% more general display advertising than either the States or the Item. After, the States' lineage equaled that of the T-P, while the Item gained only slightly.

• **The Defense**—The Times-Picayune's main arguments were that (1) the unit rate is common practice, and (2) that it was really a single paper with a morning and an afternoon edition (BW—May 12 '51, p. 48).

Altogether, there are about 184 papers that accept advertising only at a unit rate for two papers. Though that number is small compared to the total of some 1,500 papers listed in Standard Rate & Data, it is still big enough to affect a considerable number of advertisers. A number of papers offer optional combination rates as well as a separate rate for each paper. The price advantage on the combined rate is supposed to make it look like the better buy.

On point No. 2, Judge Christenberry held that there could be no question that there were two separate and distinct newspapers, produced at least

in part by separate organizations, with separate news and feature content.

• **Good News**—If the verdict stands, it will be good news to advertisers. They don't like combination rates. They may not want to go into both markets, or one paper may have a much wider circulation than the other.

MARKETING BRIEFS

A&P slips: The food chain held its place as the country's biggest retailer in 1951, but its \$3,392,541,000 of sales is lower than early estimates (BW—May 24 '52, p40). Sales were only 6.6% ahead of 1950, less than the 11.5% increase in food prices for the year and the smallest gain of any of the big food chains. Net earnings came to \$13.03 per share of common, compared with \$14.90 in 1950.

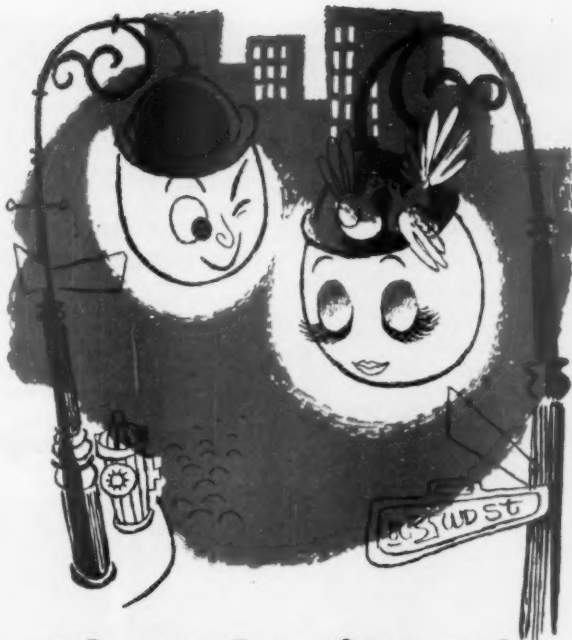
• **Cone Mills, Inc.,** is the new name of an old textile concern, Cone Export & Commission Co., Worth St., N. Y. The switch is a sign of changing times in the venerable textile center (BW—Feb. 2 '52, p84). Cone Export started as a selling agency for southern cotton mills five years before Cone Mills Corp. set up its first plant. Today it's a wholly owned subsidiary of the corporation.

• **Fair-trade contracts** are out for Eastman Kodak Co.; it has terminated the whole lot of them. Since the Schwegmann decision, the contracts have been unenforceable, Kodak says. Besides, nonsigners were undercutting signers.

• **Appliance price cuts** were announced by (1) Frigidaire, which pared as much as \$45 from its refrigerators, electric ranges, a dehumidifier, and an automatic clothes washer, and (2) Apex, which cuts \$18 to \$24 off its clothes drier prices. Bruno-New York, distributor of RCA Victor products, cut TV set prices to dealers by 10%.

• **Appliance layoffs** were announced by General Electric, which halted production of TV sets for a week at its Syracuse plant, and by the Kelvinator division of Nash-Kelvinator, which laid off about 900 workers at its Grand Rapids plant.

• **Justice Dept.** filed an antitrust complaint against McKesson & Robbins. The charge: that the company conspired with wholesalers—who compete with McKesson & Robbins—to fix minimum prices through so-called fair trade contracts covering its branded line of drugs, pharmaceuticals, and other products.



The Light of Its Life

At dusk, modern street lights wink on automatically, thanks to an alert, photo-electric control.

Such a control requires high current capacity, yet must meet small space limitations.

That is why Ward Leonard recommended its "mighty midget"—heavy-duty midget relay to the Tabet

Manufacturing Co. This control manufacturer reports excellent results, no sacrifice in performance due to small size.

Whenever you have a problem which can be solved by the proper selection or adaptation of electric controls, call on Ward Leonard's engineering department.

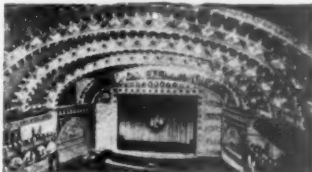
Headlines of 1888

ELECTRIC POWER AND LIGHT PLANT FOR NEW CHICAGO AUDITORIUM INSTALLED BY H. WARD LEONARD

The first electrically lighted large assembly hall was the new Chicago Auditorium, built in 1888.

The auditorium proper, 35,800 square feet, with 4,200 seats, was part of the Auditorium Building which also included business offices and a hotel.

The Chicago Auditorium installation resulted from a series of experiments by



H. Ward Leonard to produce effective and controlled light and power.

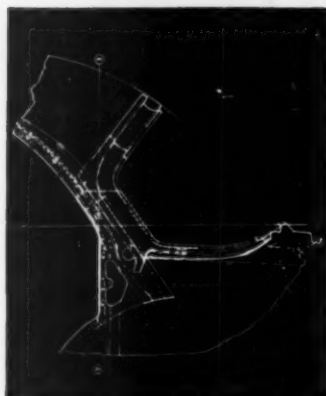
Today, Ward Leonard electric controls are still making history in the field of electrical engineering.

**WARD LEONARD
ELECTRIC COMPANY**

Result-Engineered Controls Since 1892



PRODUCTION



Old Way: Blue-prints familiarize employees with auto assemblies.



Now: Plastic models give workers three-dimensional look at parts.



SPEED is the biggest gain as Ford uses plastic models to iron out new designs. These are parts of passenger car body.



COSTS are cut, too. Here, engineer studies models of an experimental truck cab. Windshield corner is full scale.

Plastic Models Spot Bugs in New Cars

Did your last automobile leak in the rain; was it drafty as a barn in winter? Maybe the firewall separating the dashboard from the engine split after 10,000 mi.

All these are bugs that have turned up in recent model cars, and they were nothing compared to the factory troubles that cropped up before new models reached the assembly stages. For the past two or three model seasons, body bugs have been the plague of most auto manufacturers.

• **Too Fast**—The trouble was that the auto stylists got a bit ahead of the engineers and production men—demanding narrower door pillars, or new curvatures for greater glass area. The manufacturers couldn't tell from their de-

signs what would happen when they actually made the complicated pressed-metal forms that are essential to these fancy trimmings. The new parts had to go onto the production line; then the bugs were ironed out by cut-and-try methods.

• **Catching Up**—Now Ford Motor Co. has figured out a new way of tackling the problem. Between the design and production stages, the company is using plastic models that help its engineers spot poor fittings and weak joints, before they end up in your new car. The trick is simply this: The engineers take different important parts of the original design and make plastic versions of the final assemblies. That way, they can see the mistakes, and correct them be-

fore they get to the production line.

Ford says this system saved over \$500,000 on its 1952 models: It also saves time—as much as three or four months—in tooling up. Other companies around Detroit are planning to use the Ford system, or a variant of it, on their 1953 models.

• **Extra Step**—The plastic models haven't radically changed Ford's system for converting a design into a car. But they have filled in a long troublesome blank spot in the setup.

A new design starts out in life as a full-size clay model. Draftsmen take the dimensions from this model to make a full-size master drawing, called a body draft. Aided by that draft, they turn out other detailed drawings of the



The Tank That Wasn't There

A few years ago, you hauled wood, tended fires, sweated over a stove, did a hundred back-breaking chores just to keep a home going. But today a tank of Liquefied Petroleum Gas—butane or propane—has changed all this. Thanks to this low-cost fuel you step into a shower and hot water falls all over you. Meals are better—and easier to cook. Your home is warm through the iciest nights.

But to make LP-Gas available to millions required special processing equipment. It took new designs in tank cars and trucks to transport it safely and economically, and pressure tanks to store it. Such tanks enable either home or industrial users to buy this fuel in economical quantities, and to keep it available al-

ways for instant, easy use. LP-Gas equipment or *any* large industrial equipment depends on proper engineering, design, material selection and fabrication for top efficiency. Certain progressive Equipment Builders assure this. Their engineering staffs work closely with process engineers and materials suppliers. They turn to Lukens regularly for its knowledge of materials—and the design freedom and dependability of Lukens specialty steel plate, heads and plate shapes.

For names of such builders who can help you, write today, explaining your problem. Manager, Marketing Service, 483 Lukens Bldg., Coatesville, Pa.



LUKENS

LUKENS STEEL COMPANY

WORLD'S LEADING PRODUCER OF SPECIALTY STEEL PLATE • PLATE SHAPES • HEADS • CLAD STEELS

*maiden*form*

The Burroughs Sensimatic Accounting Machine speeds the preparation of customer ledgers and statements at the Maiden Form Brassiere Company.

Speed and ease of operation are the Sensimatic qualities particularly valued in installment accounting and the posting of defense bond ledgers at Nash-Kelvinator.



ROYAL

Burroughs Sensimatic

ACCOUNTING MACHINES

The Royal Typewriter Company finds the Burroughs Sensimatic's versatility a great timesaver for posting salesmen's earnings and customers' statements.

help speed the accounting of these famous firms



These and thousands of other companies have found in the new Burroughs Sensimatic the answer to today's need for better accounting records at lower cost. Remarkably fast, easy to operate, amazingly versatile—Burroughs Sensimatics provide savings in time and manpower never before thought possible. Call your Burroughs representative today. Burroughs Adding Machine Co., Detroit 32, Mich.



Posting accounts-payable expense distribution ledgers is done quickly and efficiently on a Burroughs Sensimatic at the Bigelow-Sanford Carpet Company.

WHEREVER THERE'S BUSINESS THERE'S

Burroughs



"...The sketch is then rushed to a model-making shop..."

PLASTIC MODELS starts on p. 52

subassemblies beneath the smooth lines and curves of your car.

At this point, under the old system, tool and production experts had to envisage all other problems that would arise from these subassembly drawings. They had to, in order to design good tools to produce the assemblies, to pick the most economical assembly methods, and to forecast costs accurately. Usually, when the experts were handed these drawings, there wasn't much time left before the proposed date for introducing the new model. Steel models were sometimes used to solve the worst problems. But these were a last resort—usually costly, and often out of date before they could be finished. One recent steel job cost \$4,000, took three months to make.

Ford's engineers no longer have to wait for the completion of the subassembly drawings. They take a few key dimensions from the body draft, add a few of their own ideas, and make a sketch of the subassembly. The sketch is then rushed to a model-making shop.

An expert pattern man makes master forms from wood or plastic for each part in the subassembly. Sheet plastic is pressed over the forms by pressure or vacuum to get the final shapes. The whole works is put together with brass paper fasteners, making a lightweight, scale-size visual aid.

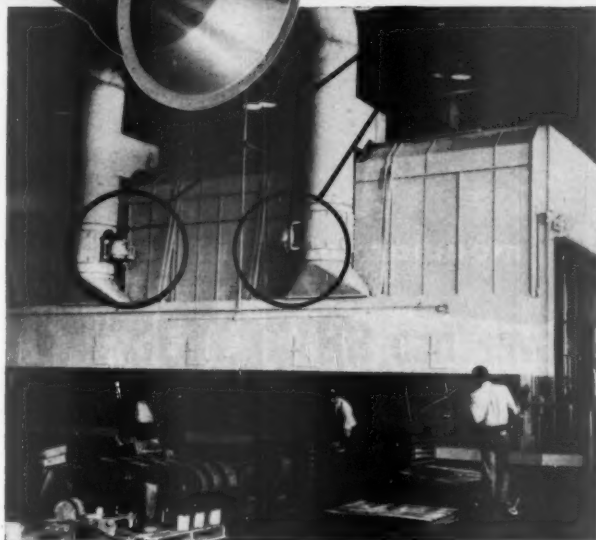
• **Duplicates**—The model shop makes enough copies of the plastic version so that everyone from design to production can work on the assembly. As many as 20 engineers in design, tooling, and welding can analyze a model at one time. Sometimes, representatives from the parts subcontractors also get a look at the parts that they will produce.

Tooling engineers, the experts who will finally sweat over the assembly, can tell whether the assembly can be produced practically with their methods and equipment. Often, they work out improvements to simplify the assembly, or find places where one part can do the job of two. The welding managers locate hard-to-get-at joints that are too crowded for spot-welding guns.

An engineering powwow can pick a model to pieces in nothing flat, and come up with a better design. A draftsman resketches the new assembly on the spot, and passes it on to the model shop. There, a new model is turned out in a few hours, or a few days at most.

• **Hurry Up**—Time savings, rather than cost cutting, is probably the biggest fea-

Thorough Paint Spray Exhaust by 2 duct-size "Buffalo"



• This Mahon Hydro-Filter Spray Booth in the Euclid Road Machinery Company's Cleveland plant accommodates large units of road building machinery and special vehicles. And two duct-size "Buffalo" Vaneaxial Fans do the exhaust job efficiently, quietly and with little attention. Fitting in like a piece of duct, these fans waste no space and are economical to install. Motors in these models are mounted outside, away from the air stream. Inspection and servicing are made easy by access doors fastened by refrigeration type latches.

There is a "Buffalo" Fan ready to solve *your* problem. Why not write today for details?

BUFFALO FORGE COMPANY
458 BROADWAY
BUFFALO, NEW YORK

PUBLISHERS OF "FAN ENGINEERING" HANDBOOK
Canadian Blower & Forge Co., Ltd., Kitchener, Ont.
Sales Representatives in all Principal Cities

VENTILATING AIR CLEANING AIR TEMPERING INDUCED DRAFT EXHAUSTING
FORCED DRAFT COOLING HEATING PRESSURE BLOWING



Rock-a-File STEEL modular furniture

Patents Pending

**Choose the arrangement
Just right for you!**

Rock-a-File MODULAR—the versatile office furniture. Precision-engineered for complete interchangeability to suit your individual taste and personal working habits.

Here is the utmost in comfortable, working efficiency combined with smart, modern appearance that is economical, too. A complete Rock-a-File private-office interior layout *actually costs less* than a good steel desk, table and

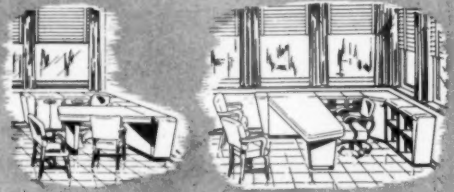
four-drawer file cabinet combination.

Any combination of Rock-a-File MODULAR units—desk, file, bookcase, waste receptacle, typewriter cabinet, corner cabinet and shelf storage cabinet—easily connect to companion units to best fit your office space.

Steel construction throughout, available in gray or walnut finish—also available in wood with natural walnut finish.

Arrange it Yourself

- to fit your office
- to fit your needs



WRITE TODAY
for catalog and name
of nearest dealer

ROCKWELL-BARNES COMPANY
35 East Wacker Drive • Chicago 1, Ill.

ture of the models system. Ford points to this example: An engineering meeting before noon one morning called for some changes in a model of 10 parts. The plastic assembly went back to the model shop where it was worked over, reassembled, and returned by midafternoon. After a 10-min. inspection by the engineers, the model was accepted, and ready for tooling up on the line.

Ford thinks that the most important factor in its system is picking the right craftsmen and technicians for the plastics shop. Knowhow and ingenuity are more essential than expensive machinery. Work must be turned out in hours and days that would take weeks by conventional methods. Only seven skilled men worked on the first models that have already saved Ford over \$500,000. The company thinks that later on it will be able to save millions of dollars yearly, providing the models are used early enough in the design and production phases.

Although coordinating design and tooling causes more trouble to automobile and truck manufacturers than to those in most other fields, Ford feels that other applications of the plastic models are possible. Ford believes that the models can aid in the manufacture of appliances and other products using pressed-metal designs.



Easy on the Tread

At high speeds, 120 mi. an hour or so, the tread of a conventional tire may be torn off. To combat this, B. F. Goodrich Co. is introducing new, specially reinforced tires. Under simulated speed conditions, in picture above, they develop "flat spots." The tread of the tire actually pulls away from the road faster than air pressure within the tire can restore its roundness. This leaves several flat spots just back of the point where the tire contacts the road.



*Mark this down
in your book...*

This GENERATOR can save up to 50% of your OXYGEN costs



For Metal
Production
and
Fabricating



For Glass
Welding and
Sealing, etc.



For Chemical
Processing, etc.

FIRST UNIT OF ITS KIND—A PIONEER

The JOY Oxygen Generator was designed to supply commercial users of oxygen at actual savings up to 50%. It is an *exclusive* Joy development. The Model OX-20, illustrated, is rated to deliver 2000 cu. ft. per hour (about 2 tons per day). The complete line will include units ranging from ½ to 12 tons capacity daily of oxygen at 99.5+ % purity.

OWN YOUR OWN OXYGEN PLANT

All the advantages of the Joy Generator become *yours*. It is simple to start and operate, can be easily handled by ordinary plant equipment personnel and is completely automatic in operation, requiring only occasional inspection and purity checks. What's more, the unit is *inherently safe*—along with a top operating pressure of only 185 psi, it has pop safety valves and an automatic shut-off system.

NO MESSY CHEMICALS

Joy "OX" machines are readily adaptable to single or multiple installations; and for feeding plant supply lines, filling cylinders, or both. The only raw material used is *air*, and the units are self-cleaning . . . no messy chemicals to supply, no residue to remove. • Write us your oxygen requirements . . . Joy Manufacturing Company, Oliver Bldg., Pittsburgh, 22, Pa.

JOY

SPECIALISTS IN THE COMPRESSION AND
MOVEMENT OF AIR AND GASES SINCE 1885

A SHUTOUT

...that saved
BRIGGS STADIUM
from loss by
Moisture Damage



AN IMPORTANT SHUTOUT

was scored for Briggs Stadium—home of the Detroit Tigers Baseball Club—by the TREMCO MAN. Water infiltration had already caused concrete spalling, cracked and crazed walls and rusting of reinforcing rods. Considering existing conditions and desired appearance, Tremco 101 Mastic was selected to protect, preserve and beautify.



END TO MOISTURE TROUBLES

Quickly applied by brush and spray, Tremco 101 Mastic forms an elastic impervious coating. It becomes a seamless seal that expands and contracts with temperature changes—completely shutting out driving rain. Applied over brick, concrete, stucco, stone and other surfaces, Tremco 101 Mastic does not become brittle, peel, crack or sag.



PROTECTS, PRESERVES and BEAUTIFIES

Furnished in a selection of colors, Tremco 101 Mastic both beautifies and seals in one application and lasts for years. The Tremco Man has experience in sound techniques for low-cost prevention of moisture infiltration. He is qualified to recommend the best material and method to cut maintenance of your buildings. Call or write. No obligation. The Tremco Manufacturing Company, Cleveland, Ohio or The Tremco Manufacturing Company (Canada) Ltd., Toronto.

TREMCO

PRODUCTS AND METHODS
FOR BUILDING MAINTENANCE

UM-1018

Catching Engineers Young

That's the object of a joint industry-school program for steering precollege youths into scientific courses. It's backed by the Edison Institute and New York's Education Dept.

Industrialists and educators in New York State last week attacked the shortage of engineers from a new angle. The goal of their meeting in Albany: a joint drive to get boys of high school age interested in an engineering career.

The session was sponsored by the State Education Dept. and the Thomas Alva Edison Foundation, Inc. It drew representatives from schools and leading manufacturers in six industrial areas—Schenectady, Elmira, Syracuse, Rochester, Buffalo, and Binghamton.

• **Localized**—After the basic problem had been outlined, the session was divided into six regional sessions, each seeking a practical and purely local solution to the shortage of engineers. These local groups will continue their work at home. If they achieve any real measure of success, the Edison Foundation will extend the program to other states.

Hitherto, there has been a lot of talk about coping with the shortage of engineers. But only a few companies have recognized that it's a permanent, not a temporary, problem. A few outfits have sought to get more mileage out of the engineers they already have, by delegating routine chores to skilled workers (BW—Feb. 8 '52, p. 46). Others have made efforts to steer college youths into engineering and science.

• **Early Start**—The New York conference went a step further. It was based on the idea that if a student hasn't taken scientific courses before he gets to college he's most unlikely to adopt engineering as a career. Teachers have been trying for some time to arouse this interest. But their efforts have been largely nullified by the absence of support from industry.

The Albany conferees arrived at a multipoint program to get the schools and industry working together:

- Setting up local committees representing the schools and the potential users of their graduates. The committee could make suggestions to school boards on how to interest students in engineering.

- Industry should furnish materials for use in both classroom and extracurricular projects.

- Schools should seek industry advice on courses and programs.

- Industry should hire more teachers for summer and part-time jobs.

- Schools should teach science by the problem method; and the problems should be practical rather than textbook examples.

- Students and teachers should visit industries; industrialists and other community leaders should visit schools.

- Industry should stress the prestige and importance of the field of scientific teaching.

Besides these general recommendations, the Albany conference made a few more specific suggestions. It was urged that the industry members of local committees be appointed by individual companies and not by chambers of commerce or similar groups. This, it was held, would insure continuing interest by the companies.

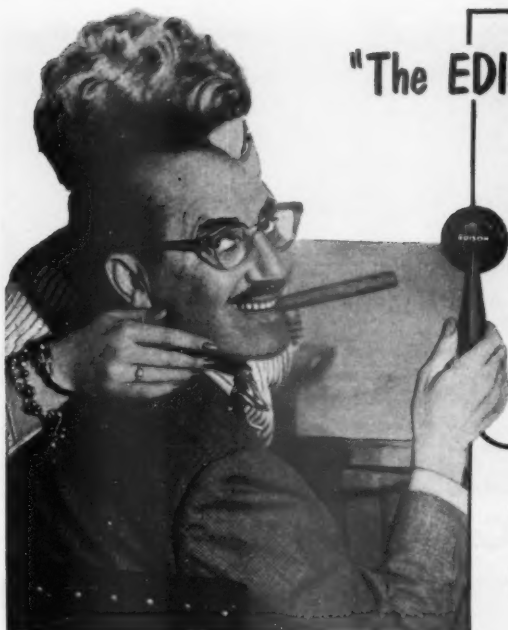
- **Top Students**—The conference also suggested that special programs be adopted to attract honor students. The idea was that the brilliant students would have to be lured by different bait from that suitable for their more average classmates. For both purposes, it was suggested that industry provide speakers, exhibits, and even experimental equipment for school science clubs and fairs.

One proposal made by the conference would work best on the local level. This recommendation was that cumulative records should be kept that would include the student's school and work records. The file should include information on the student's study habits, school attitudes, and initiative as well as grades. The industry part of the file should include information on summer employment and part-time jobs. This cumulative file would then be available to colleges and prospective employers, according to the plan.

Other proposals were that (1) industry's help should be sought in the designing and building of schools, and (2) that industry should urge its professional societies to invite teachers to take an active part in their proceedings.

Benjamin C. Willis, Superintendent of Schools in Buffalo, got things started on a practical basis. He told industry that he had a list of scientific equipment needed in his schools, and that he would seek industry advice on what other types of equipment it felt would best be used in teaching practical problems. Industry, Willis indicated, would be asked to help provide the equipment.

Martin Hilfinger, president of Associated Industries of New York State, summed up industry's viewpoint: "I believe that the time will come when all companies will require of their executives personalized and even subsidized attention to school affairs. . . ."



**"The EDISON VOICEWRITER
cured us of
the work habit!"
says
GROUCHO MARX**

" Thanks to my wonderful Edison Voicewriter,
my secretary and I now work as a team.
(Ya-a-y, team!) That Voicewriter of mine
gets me through a full two-hour working day
in 19 minutes flat! And it's so accurate, I can
sign my letters without the revolting necessity
of reading them. This is a relief as I am
a great lover of beautiful English—
and beautiful Americans, for that matter. "

**EXTRA! GROUCHO MARX INVENTS
EDISON! FREE BOOK TELLS ALL!**

Marx, the Irrepressible, has written a new book!

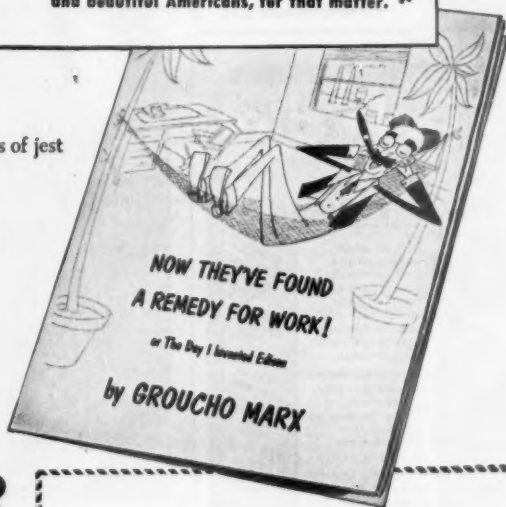
Sixteen pages of convulsive comedy by the genius of jest
which had even the printing presses chuckling!

It's the story of Groucho himself,
of a mad movie scenario, of the strange dream he had,
of his addled adventures with executives,
inventors, lawyers and siren secretaries.

It's Marx at his hysterical best.

And it's certain to be a collector's item!

So don't just sit there longing—
the coupon is waiting—and so is *your* copy,
if you hurry ...!



EDISON VOICEWRITER



Only Edison makes the EDISON VOICEWRITER, the world's
foremost *individual* dictating instrument—and EDISON
TELEVOICE, the amazing new system of *phone* dictation.
You can always rely on Edison!

Thomas A. Edison, Inc. (Ediphone Division)
58 Lakeside Avenue, West Orange, N. J.

Please send me your new booklet for executives, NOW
THEY'VE FOUND A REMEDY FOR WORK! by Groucho Marx.

Name _____

Title _____

Company _____

Address _____

City _____ Zone _____ State _____

just \$60⁰⁰
to speed-up your
packaging!



Yes, this simple, low cost bagger is doing a fast, time-saving job for thousands of users. It bags 101 small products so easily that new uses are being found constantly. Stainless steel chute, capacity 200 bags, adjustable to bag sizes. Blower, equipped with air filter, opens bag and keeps it free from foreign matter.

Tell us your packaging problem and let us give you all details.

Price, \$60.00; with extra large bag chute, \$65.00.



ANDERSON BROS. MFG. CO.
Rockford, Illinois, U. S. A.

WRITE TODAY FOR
BULLETIN No. 6-53

Talide

(TUNGSTEN CARBIDE)

TRIPLES YOUR PRODUCTION



DIES



BLADES



BUSHINGS

Millions of small metal particles, finer than face powder, are fused together under terrific heat and pressure to make TALIDE the world's hardest metal.

Many times more durable than steel, it adds years of life to the wearing edges of tools, dies, machinery and equipment.

Hard as a diamond and almost indestructible, it triples output per man and per machine.

Write for
Catalog 50-G.



METAL CARBIDES CORPORATION

YOUNGSTOWN 7, OHIO
SINTERED CARBIDES • HOT PRESSED CARBIDES



BAR STOCK



TOOLS



ROLLS



Quality Control by Nuclear Eye . . .



. . . Ups Coated Abrasives Output

The almighty atom has moved into another field: the manufacture of coated abrasives. Carborundum Co., of Niagara Falls, announced this week that it was successfully using nuclear gauges for high-speed quality control.

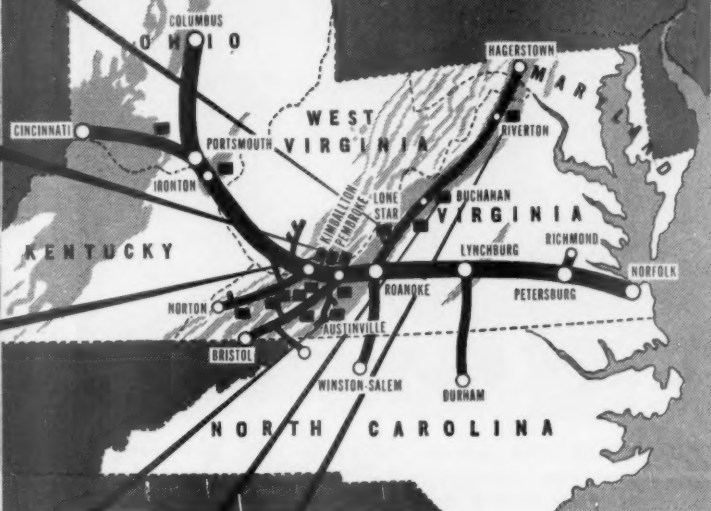
• Double Duty—Radioisotopes are the key to the Accuray beta-ray gauges that Carborundum is using for continuous

monitoring of production lines that move up to 350 ft. per min. The gauges—made by Industrial Nucleonics Corp., Columbus, Ohio—give accuracy within 1%, and perform a double service.

• They signal for production line adjustments that can be made in a matter of seconds, without shutting down

LIMESTONE

IS ABUNDANT *in the Land of Plenty*



If it's limestone you want, you can have it right in the backyard of your plant. You can have it in the Land of Plenty—where high calcium, dolomitic and magnesian limestones are easily accessible from some of the nation's greatest limestone deposits.

Limestone and dolomite have a greater number of important uses than any other naturally occurring substances, except coal and petroleum. The availability of such deposits in Norfolk and Western territory is playing an important role in the efficient operation of many industries in this area . . . as a basic raw material for cement plants, steel mills, lime plants; and in the manufacture of glass, rock wool, and calcium carbide. Other important uses are as ground limestone

for soil conditioning in the agricultural industry; the production of mine dust for safety protection in coal mines; in water purification; and the manufacture of plastics, alkalies, refractories, and additional uses too numerous to mention.

If it's limestone you need—it's abundant in the Land of Plenty! For further information, write the Industrial and Agricultural Department, Drawer B-511, Norfolk and Western Railway, Roanoke, Va.

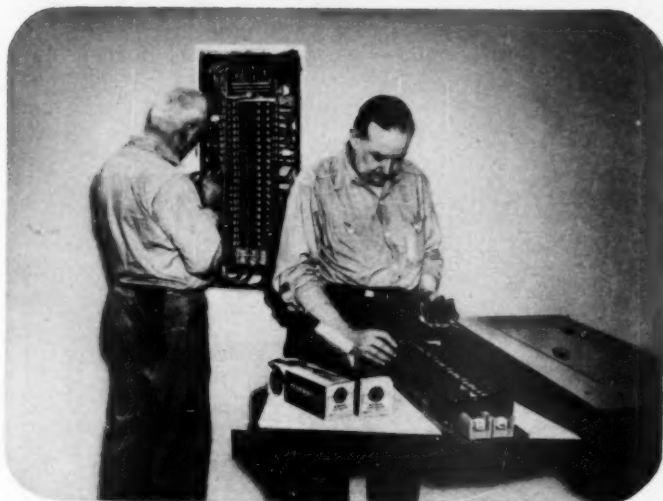
CHECK THESE INDUSTRIAL ADVANTAGES!

Steady, home-rooted labor supply . . . spacious plant areas . . . ample electric power . . . abundance of world's finest Bituminous Coal . . . adequate industrial water . . . favorable tax rates . . . Norfolk and Western Precision Transportation for fast, dependable shipments to domestic markets, and to world markets through the year-round, ice-free Port of Norfolk.

Norfolk and Western RAILWAY

* The Land of Plenty—the six great states served by the Norfolk and Western—Virginia, West Virginia, Ohio, North Carolina, Maryland and Kentucky.

FEDERAL *Stab-lok* DESIGN MODERNIZES PANELBOARD PRACTICE



UNTIL THIS YEAR, electricians had no choice but to order lighting panelboards from a manufacturer. Each panel was factory-assembled to individual specifications, and deliveries took time. Such panelboards took longer and were more costly to install. Pulling wires into them was an awkward job... adjusting for plaster level was bothersome. It needed two men to align the interior and hang the trim.

Federal Noark brings the Answer

Federal Noark Stab-lok Panelboard design has completely removed the need for factory assemblies. Electricians can now get the necessary box and Stab-lok circuit breakers from their distributor's stock and assemble a panelboard in minutes. And it's a cinch to install! The interior lifts out and leaves the whole box clear for wire pulling. Plaster-level alignment is automatic. One man easily adjusts interior and hangs trim... It's a prime fact, too, that Stab-lok breakers give today's safest circuit protection. Millions are now in service.

Design Leadership

Through a range of radically new designs, Federal Noark has recently effected more improvements in the field of control equipment than had formerly been made in a score of years. The demand for Federal products has doubled and redoubled. Today there are five large Federal plants in U.S., and one in Canada. Another is under construction in Dallas, Texas.

FEDERAL ELECTRIC PRODUCTS COMPANY
50 PARIS STREET NEWARK 5, N. J.



FEDERAL NOARK

Plants at Newark, N. J.; Long Island City, N. Y.; Hartford, Conn.; St. Louis, Mo.; Los Angeles, Calif.; Toronto, Canada.



"... savings on shutdowns and rejects alone will pay for the installation ..."

COATED ABRASIVES starts on p. 60

the line. Formerly, to make a test, the line had to be stopped, and cuttings taken. Not till then could adjustments be made. The process was costly, exact duplication of previous runs was difficult, rejects and returns were fairly common.

- A permanent record is kept as the nuclear gauges actuate recording devices.

The \$90-million-a-year coated abrasives industry sells its product to almost every branch of manufacturing. The layman thinks first of sandpaper, but industrial products actually come in a wide variety of shapes, coating, and backing.

- **Uniformity**—Carborundum says that with the nuclear gauges it can turn out a product of perfect uniformity—and duplicate it later whenever the customer asks.

Carborundum believes that savings on shutdowns and rejects alone will pay for the installation within months. Additional pluses include the possibility of developing new grades of abrasives for special problems. Again, the material formerly cut out for test samples can now be sold. And it will no longer be necessary to overshoot on specifications to make sure the requirements are met.

The gauges give 100% continuous sampling, unaffected by temperature, dirt, or humidity. The beta rays are emitted by a sealed capsule of radioactive Strontium-90. As the sheet passes between the capsule and the detector unit (a special ionization chamber), the amount of radiation reaching the chamber varies with the density of the backing and coating.

- **Set of Five**—Each production line requires a set of five gauges. The first measures the backing of the abrasive—usually of paper, cloth, or fiber. Since any variation in weight of backing affects coating operations, Gauge #1 provides a sort of base measurement.

Gauge #2 picks up the combined weight of backing and adhesive coat; #3 adds to that the weight of the abrasive itself. Gauge #4 measures the product after preliminary curing, but before final application of adhesive. Gauge #5 includes this final application.

Signals from each gauge—expressed in low voltages—are traced on a continuous sheet in inks of different color. Thus any deviation from specs is noted immediately, with the color of the ink showing the seat of the trouble.

65 different types of business

—thousands of concerns—now using Recordak microfilming

... to photograph documents *instantaneously*—for a fraction of a cent apiece; to simplify accounting routines; to save up to 99% in filing space; to increase protection.

Super Markets, for example



are using Recordak microfilming to photograph the checks cashed for customers—to get 100% accurate and complete copies *instantaneously*... simply by pressing a button.

This eliminates the tedious and costly routine of describing each check in detail

before it's forwarded to the bank for deposit. And, of course, ends transcription errors.

At the same time, the store is safeguarded against the loss of checks either in transit or by theft. For its picture-perfect microfilm records—unlike "hand" records—can't be questioned.

Thus, Recordak microfilming has made the cashing of customer-checks a businesswise service—performed with minimum risk and cost.



Your business?

Regardless of its type or size, you should investigate Recordak microfilming soon. For the chances are this truly remarkable photographic process is already simplifying routines which are similar to yours... *doing a more efficient job at a fraction of your present costs.*

Write today for detailed information on the process... and the complete line of Recordak Microfilmmers now offered on a surprisingly low-cost purchase or rental basis.

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(Subsidiary of Eastman Kodak Company)

originator of modern microfilming—and its application to business routines



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You won't find our name on the package, but to American coffee roasters—famous for the finest brands sold anywhere—Otis, McAllister & Co. is a reliable source of the world's best coffees.

Backed by 60 years experience in Central and South America—with 16 affiliated offices staffed with experts who have made a career of knowing coffee—Otis has contributed much to help develop the fine blends—and your enjoyment of them.

Coffee is the economic life blood of many Latin American Republics. Coffee means dollars to these countries—enables them to buy—and Otis to assist in selling many famous American products, such as: Sun-Maid Raisins, Pillsbury Flour, Kellogg Cereals, Evangeline Hot Sauces, Dennery Bakery Supplies, Armour Meat Products, Golden State Milk, to mention a few.

OTIS, McALLISTER & CO.

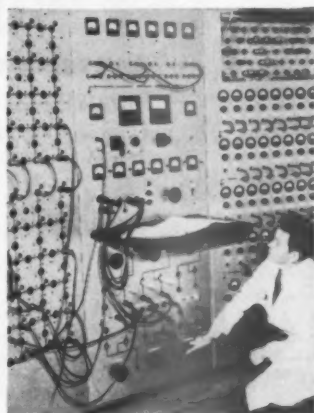
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CHICAGO • LOS ANGELES • TORONTO



PRODUCTION BRIEFS



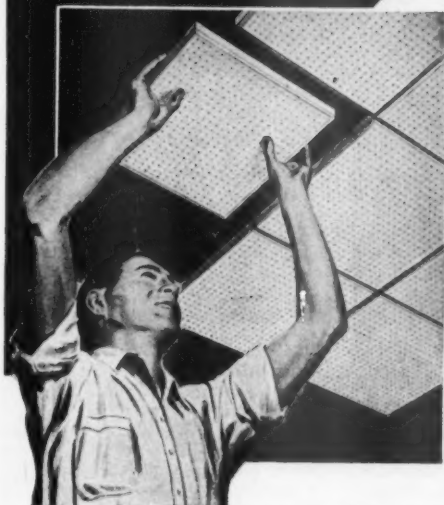
Studies of such complicated networks as water-distribution systems, illuminating-gas systems, or air-conditioning systems are simplified by the new McIlroy Pipeline Network Analyzer (above), being used here by engineers at Midwest Research Institute in Kansas City. It is one of three such devices in the country. The analyzer uses electrical current to simulate actual pipeline flow. Special bulbs behind the panels light up to show where and how much liquid is flowing or has escaped between connections. The master dial gives direct readings of fluid flow in any pipeline.

Atomic Energy Commission has placed an \$11-million order with Carborundum Metals Co., Inc., a subsidiary of Carborundum Co. of Niagara Falls, for production of zirconium and hafnium metal. The contract is a step in AEC's program to encourage private enterprise to take over portions of AEC's work. Zirconium, a relatively new metal, is useful in construction of nuclear reactors because of its low absorption of neutrons as well as its tensile strength and corrosion resistance.

Dual carburetion (BW—Mar. 22 '52, p 50) has been made available by Hudson for its six-cyl. models. Twin-H-power, as Hudson calls it, is said to improve distribution of gasoline to the cylinders, thereby increasing acceleration and efficiency.

Norfolk & Western, the last major United States railway to rely exclusively on coal, expects to road-test the world's largest single-unit locomotive within the year. The 161-ft. giant is a coal-burning steam-turbine electric designed to develop 4,500 hp. in heavy freight service.

How I wish
this **NOISE**
would stop!



Johns-Manville Fibretone Acoustical Ceilings effectively reduce noise . . . readily installed, they provide the quiet comfort so necessary for better, more efficient work.

Wishing won't help
...but **FIBRETONE***
Ceilings will!



● Because distracting noise is so harmful to efficient business operation, practically all new building specifications include acoustical ceilings for sound absorption. However, just because your present building was constructed before sound control became an established science, there is no reason for you to be handicapped by noise. You can have a Johns-Manville Acoustical Ceiling quickly installed over your present ceiling.

Johns-Manville FIBRETONE offers an acoustical ceiling which is highly efficient and modest in cost. It consists of 12" square panels of sound-absorbing materials in which hundreds of small holes have been drilled. These holes act

as "noise-traps" where sound energy is dissipated. Fibretone is predecorated, can be painted and repainted, and is available with a flame-resistant finish.

Other Johns-Manville Acoustical Ceilings include *Perma-coustic**, a textured, noncombustible tile with great architectural appeal; *Transite**, panels made of fireproof asbestos; and *Sanaoustic**, perforated metal panels backed with a noncombustible, sound-absorbing element.

For a complete survey by a J-M acoustical expert, or for a free book entitled "Sound Control," write Johns-Manville, Box 158, Dept. BW, New York 16, N. Y. In Canada, write 199 Bay Street, Toronto 1, Ontario.

*Reg. U.S. Pat. Off.



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Countless dollars are wasted every day when employees leave their work to reach people in other departments! Executone Intercom gives everyone instant contact with everyone else.

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the
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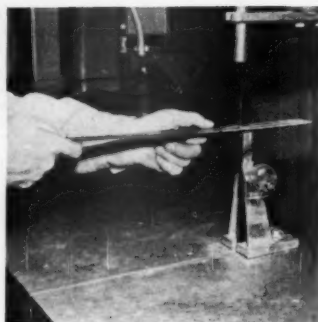
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NEW PRODUCTS



Box Strapping . . .



. . . Cuts Steel, Costs

Solar Aircraft Co. has discovered a new way to use ordinary box strapping, which usually is baled and sold for scrap. It uses the strapping to cut stainless steel at its San Diego (Calif.) plant.

The idea started when a Solar methods analyst was detailed to find a way to slice the several thousand dollars a month Solar spends for bandsaw blades. He decided to try a toothless blade. The only metal handy was some ordinary strapping used to wrap boxes. It was standard-thickness .035, medium-carbon steel, SAE 1040. Solar workmen welded it into an endless section, put it on the saw. It not only worked better than a standard blade on stainless steel, but it lasted much longer. Results on non-ferrous metals were disappointing.

Solar reports that the box-strap band blades cost about 10¢ each: Regular fabricated blades with teeth cost more than \$3 each. Standard blades last about two hours on Solar machines; the box strap blades run about 29 hours before breaking.

Solar has also been experimenting with clockspring steel without teeth at a thickness of .032 in. One such blade ran for over 714 hours, and its original one-half-inch width had been cut down only .005 inches. The clockspring steel cost 50¢ for a 194-ft. bandsaw blade. Solar's goal is to come up with a 100-hour bandsaw blade.

• Source: Solar Aircraft Co., 2,200 Pacific Highway, San Diego 12, Calif.

NEW PRODUCTS BRIEFS

A new fluorescent street light has been developed by General Electric. The six-ft.-long fixture provides constant, virtually glareless light despite temperature changes. Light comes from four 100-watt, rapid-start lamps, which light within one second without blinking. The fixture, which has a clear plastic housing and a built-in transformer, weighs about 100 lb.

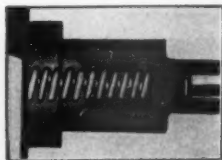
A pneumatic angle-head drill to make close-quarter drilling easier has been designed by Mall Tool Co., 7,740 S. Chicago Ave., Chicago 19, Ill. The light, compact 1/2-in. angle head can be swiveled to any position by loosening a single nut. A built-in regulator allows for variable speeds.

An open-mesh sanding fabric called Gritcloth has been introduced by Bay State Abrasive Products Co., 12 Union St., Westboro, Mass. The abrasive-coated fabric is washable, lets clogging materials escape through the mesh. It can be used wet or dry, flat or folded, on sanding machines or by hand. The manufacturer claims it lasts 10 to 15 times as long as traditional, solid-backed sandpapers.

Accurate color measurements of synthetic fibers, paints, liquids, pigments, and other materials can be made in less than 30 seconds with a Colormaster Differential Colorimeter. Manufacturer Engineering & Equipment Co., Hatboro, Pa., claims its instrument is more sensitive than the eye. Power required is about 65 watts.

Radioactive sources encased in ferromagnetic materials can be picked up at safe distances with a magnetic remote handler developed by Tracerlab, Inc., 130 High St., Boston 10, Mass. The device has a five-ft. aluminum shaft, a one-ft. chrome-plated flexible gooseneck, and a stainless-steel tip. A permanent magnet, set in the tip, is retracted by a handle at the safe end of the shaft.

TURNING IDEA-PLASTICS INTO DOLLARS



Check valves of Du Pont nylon plastic seat perfectly without machining...give long, trouble-free service

For fingertip ease in raising and lowering implements such as plows, the newest farm tractors have hydraulic controls. But the first controls designed had a serious "bug." The plow tended to creep up while in use, because hydraulic oil leaked through the check valves as their sealing surfaces wore or became grooved.

So the tractor maker tried a check valve made of Du Pont nylon plastic. Injection-molded in rapid mass production, the nylon check valve needs no machining. Resilient nylon provides a perfect seal . . . even makes up for slight imperfections in the mating surface. Oil can't leak; the plow can't creep. And this nylon part has shown no signs of wear after two years of service—withstanding

the up to 200°F. temperature of oil in the system, remaining dimensionally stable, chemically inert.

Parts molded or machined of Du Pont nylon have a variety of uses. Nylon is light . . . resists abrasion and moisture . . . runs in many cases without lubrication. In addition, it can be molded in thin sections and around delicate inserts.

There are more than 100 plastics and chemicals made by the Du Pont Polychemicals Department. For information on those products which have possibilities for you, write on your business letterhead.

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TOP JOBS



INVEST

The company has more than \$40-million in steel stocks; the treasurer must analyze them, recommend when to sell. Brokers give him daily market reports.



REPORT ECONOMIC TRENDS

Cleveland-



MANAGE THE FINANCES



The treasurer must make business forecasts—both for the general economy and for specific industries—and assess effects on Cleveland-

Cliffs. It means frequent work at home, poring over reports. Findings come up, formally or informally, at top-staff meetings.

Cliffs' Treasurer: What He Does

(Story starts on page 70)



The treasurer must know how much cash the company will have, how much it will need. He charts a cash forecast each Spring.

Then he watches day-by-day spending and lending—through the cashier's operations and meetings of the credit committee.

Will his widow ruin your business?



Suppose a principal of your company dies. His interest goes to his widow. Suppose she needs money to carry her through the emergency and you want to pay back that interest but you can't raise the cash. Or maybe she decides to become active in the business. Such a decision might not be in her best interest—or the company's. But there seems to be no other way out.

You can easily prevent this!

You can be sure surviving heirs sell an interest at a predetermined fair price... provide immediate cash to purchase that interest... arrange for the continuation of the business... protect your company's credit and the interests of the surviving principals. The answer is a properly implemented Business Purchase Agreement prepared by your lawyer.

Send for your copy of "The Importance of Business Purchase Agreements". Applies to all businesses—close corporations, partnerships, sole proprietorships. Gives the facts every businessman should know about purchase and sale agreements... explains the role of insurance in an agreement. Before it slips your mind, write on your business letterhead to **National Life, Dept. E, Montpelier, Vt. for your free copy.**

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"... Harrison's day will be interwoven with the profit-and-loss aspects of iron-ore mining..."

TREASURER starts on p. 68

The treasurer of Cleveland-Cliffs Iron Co., an orderly man both by nature and habit, arrives at his desk at 8:55 a.m. From his briefcase, he takes an assortment of letters and reports—papers he has worked on the night before at home. From the inside pocket of his coat, he extracts seven or eight index cards.

Fanning out the cards, on which he has penciled crisp three- and four-word reminders or ideas, H. Stuart Harrison starts his official day for Cleveland's 102-year-old iron-ore company.

• **Mines and Ships**—As ranking financial officer, Harrison's day will be completely interwoven with the profit-and-loss aspects of iron-ore mining and the sale of that ore. He will also spread his fiscal attention over the affairs of the company's fleet of 24 lake vessels, its coal department (Cleveland-Cliffs transports and sells coal, but does not produce it), a wholly owned electric utility company, majority interest in a Class I railroad, a land and lumbering department, and \$40-million in investment funds.

Cleveland-Cliffs, publicly owned and conservatively operated, is a company with assets of a little more than \$121-million. In 1951 it had net sales and operating revenue of about \$108-million; its net profit for the year was approximately \$10.4-million.

• **The Office**—The treasurer of Cleveland-Cliffs answers directly to the board chairman, E. B. Greene; the company president, A. C. Brown; and the board of directors. He works closely—and on an equal level—with two vice-presidents and the men who handle sales, accounting, taxes, personnel, and law.

His own staff amounts to 17 people. It includes the assistant treasurer, the cashier, the credit manager, and various

assistants, clerks, and secretaries. All of them are quartered on the 14th floor of Cleveland's Union Commerce Building.

• **The Duties**—The treasurer operates in four main areas: (1) financial management; (2) investments; (3) economic policy; (4) stockholder relations. To this might be added a fifth, which, for want of a better name, could be called keeping up with trends.

On Monday, Apr. 21, a day picked at random, the treasurer's morning mail was a fair sample of what is involved in each of these areas.

A letter from a Boston bank asked for an appointment; it wanted to discuss some services it had to offer Cleveland-Cliffs. A California stockholder wrote—as California stockholders frequently do—asking the company's outlook for 1953. One of the steel companies in which Cleveland-Cliffs has a financial stake sent in its first-quarter report. Harrison read this carefully, put it aside for further study.

Two security analysts—one representing an open-end investment trust, the other an officer in the trust department of a New York bank—asked for appointments. The editor of a financial magazine asked Harrison to prepare a manuscript for his publication on the benefitting of low-grade Lake Superior ore.

A memo reminded Harrison of the annual meeting of the local Yale scholarship committee (he is a member). Another, from a financial group, invited him to a luncheon meeting to hear a speech by a local banker. Finally, a third memo asked Harrison to participate in a group meeting to promote the candidacy of Gen. Eisenhower.

The mail read, Harrison began dictation to his secretary, Miss Frances Kelleher. From there, his eight-hour day progressed, more or less, in its normal pattern. Over a period of a year, four hours of the day go to financial management, one to investments, two to economic policy, and one to stockholder relations.

I. Financial Management

How much money the company will need, what it needs it for, where it will get it. These are the main concerns of the treasurer in managing the finances of Cleveland-Cliffs.

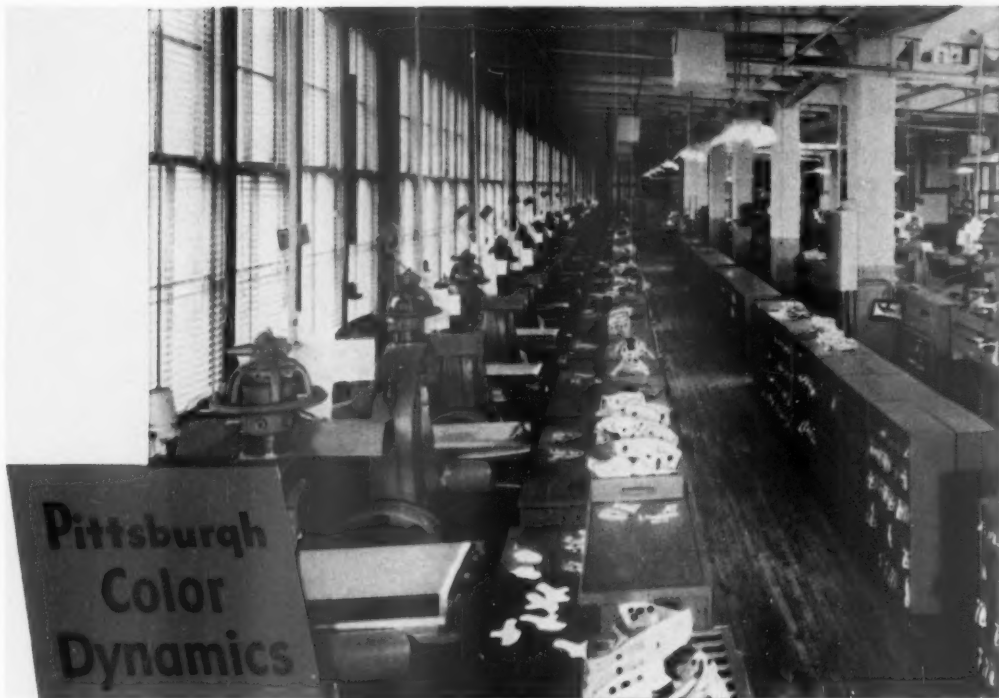
There are lesser concerns, some attached, some separate from these. Bank relations, periodic reports to the president and to the board, credit policy (the company frequently makes loans to coal customers) are all part of the financial-management province.

On Apr. 21, Harrison spent a half-hour in the morning with James Long, the assistant treasurer, going over the contents of a memo on the extension of the company's credit policy to coal

Organizational charts or textbooks—these have been the main sources for the businessman or management student seeking to find what is involved in a particular executive job.

This week **BUSINESS WEEK** adds a third, and new, source—in the first of several analyses of individual top jobs. In part, this is a job description, translated into terms of the specific action an executive takes in each of his areas of responsibility. It is also a study of the executive himself. What makes him a successful treasurer or vice-president.

This is what it means to be treasurer of Cleveland-Cliffs Iron Co.



... contributes to improved production and morale in Nunn-Bush Shoe Plant

BY actual experience with Pittsburgh COLOR DYNAMICS, executives in many plants are finding that color properly "engineered" on machines, walls, floors and ceilings of their plants produces *more work per man-hour and more man-hours per man!*

● **This new painting system** is based upon the simple fact that the physical, mental and nervous systems of human beings are affected and influenced by the *energy in color*.

The Milwaukee, Wisconsin, plant of the Nunn-Bush Shoe Company, one of America's foremost shoe manufacturers, is an example of the benefits that result from the use of COLOR DYNAMICS.

● **Three years ago** this plant was repainted according to COLOR DYNAMICS—walls, ceilings, floors and machinery. Focal colors were used on operating parts of machinery and eye-rest colors on stationary parts to en-

able workers to see their tasks better. Walls and ceilings were finished with *morale-building* colors to provide additional eye-rest areas. *Safety* colors were used to reduce accident hazards.

● **The benefits** to workers and management since repainting with COLOR DYNAMICS are told by Elmer E. Rexin, Nunn-Bush's Maintenance Superintendent: "Formerly machines were dark gray and the work benches were merely shellacked. Since repainting, we have noticed a decided change in the efficiency of our operations and in the morale of our workers."

"The new color treatment reduced eye fatigue, helped to improve the morale and created a more orderly appearance. Our employees became more conscious of cleanliness and each machine operator made great strides to keep his machine neat and tidy. The new color scheme also received many favorable comments from the many visitors who came to our factory."

You Can Obtain a COLOR DYNAMICS Engineering Study of Your Plant—FREE!

Your plant may need COLOR DYNAMICS. Why not try this new painting system on a machine or two—or in one department? We'll be glad to make a scientific color engineering study for you **FREE** and without obligation.

There's a trained color expert at each of our offices located in all principal cities. Call your nearest Pittsburgh Plate Glass Co. branch and arrange to have our COLOR DYNAMICS representative see you at your convenience. Or send the coupon below.

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☐ Please have your representative call for a Color Dynamics survey of our properties without obligation on our part.



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tion line fabrication of these pieces requires steel of consistent uniformity and analysis.

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customers for another year. At 10:30 a.m., he chaired a meeting of the company's five-man credit committee (the assistant to the president, the assistant treasurer, the assistant secretary, the credit manager). On the recommendations of the committee, Harrison approved 11 credit applications. The meeting broke up at 10:55.

• **Forecasting**—To plan its budget, Cleveland-Cliffs must know how much money it will need for capital spending, how much ore it will sell, how much money it will earn, how much it will need for dividends. It is the treasurer's job to find out.

Harrison makes up three regular forecasts: one for capital expenditures, which may project as far as 10 years ahead; one for cash, on a one-year and three-year basis; and one for profit and loss, on an annual basis.

For a cash forecast, as many as 30 people may be involved—starting with the mine clerks in each of the company-owned or operated mines. The job, completed, takes about 240 man-hours. A revision—every month—takes about half that time.

Work on the project starts in April, the opening of the lake-shipping season. Starting in May, cash needs normally will exceed income for about four months. One of the main aims of the forecast is to find out if there has to be short-term financing.

• **Details**—Harrison memoes the coal department, the ore-mining department, the ore-sales department, and the lake-transportation department for their expected volume of business for the year beginning May 1. Each department submits tonnage, sales, and price estimates, by months.

The treasurer then weighs and balances these figures against trends and past experience, estimates the dividends he will get from steel-stock holdings, finally gets detailed figures from each department and has them correlated. The report—a quick, concise picture of the company's cash position—is presented to the board.

At 11:00 a.m. on Apr. 21, Harrison and seven other executives (the comptroller, assistant comptroller, department heads) assembled in the board room for their year-end cash-forecast meeting. (The cash-forecast year ends Apr. 30.) The treasurer, using one of his frequent charts, pointed out why the previous year's forecast had missed its mark: Capital spending had been \$2.2-million less than expected; the need for working capital had been \$17-million, against an estimate of \$15-million.

Comptroller D. E. Sadler—who is the company's top accounting officer—talked about possible increases in wages and freight rates, touched on the difficulty of making a 12-month cash fore-

cast based on eight months' production operation. The meeting was over at 11:45.

• **Financial Control**—There are many factors—other than the profit motive—that may determine the policy of top management. All of them are side issues to the treasurer. Profit and profit alone is his goal.

Financial control, a tool to measure and determine profit potential, is an innovation to the treasurer's job at Cleveland-Cliffs. Harrison himself established the control, patterning it after a system used by E. I. du Pont de Nemours & Co.

In essence, financial control sets up standards for such things as inventory, accounts receivable, earnings as a percent of sales, and turnover. What it works toward is return on investment; the aim is to secure maximum profit.

• **Decisions**—Perhaps the most important function of the treasurer of Cleveland-Cliffs is to advise on policy decisions. The board makes no move—either for the company as a whole or for one of its departments—without the treasurer's advice on the financial aspects of the project.

In 1945 the company considered buying an iron-ore mine. Harrison—by making a general economic forecast and a specific forecast of earnings—set a figure on what Cleveland-Cliffs should pay for the property. (The investment has been extremely profitable.)

A year ago Cleveland-Cliffs needed money to finance expansion. Harrison recommended borrowing \$15-million from insurance companies. The board approved, and the treasurer then went out and negotiated the loan with Northwestern Mutual Life Insurance Co. and Aetna Life Insurance Co.

The treasurer's most difficult—and successful—operation was the consolidation in 1947 of Cliffs Corp. and Cleveland-Cliffs Iron Co. Harrison and Greene, the board chairman, worked out scores of consolidation or recapitalization plans before one was finally accepted.

II. Investments

Cleveland-Cliffs has about \$40-million invested in steel stocks. It gets nearly 30% of its income from the dividends on these shares.

Because investments are so important to this company, they make up a separate division of Harrison's job—not a lumped-in part of financial management.

Each month Harrison prepares a separate analysis of each of the companies in which Cleveland-Cliffs has a stake. He gets daily reports on their stock from Cleveland brokers.

It is up to the treasurer to recommend when to sell stock, how much to

*"You're right E. R.,
this new Patapar really
does resist oil!"*



Stops grease "crawl"

Do you have an oil or grease penetration problem? Does oil or grease "crawl" along the surface and around the edge of your packaging material? Then test this new lightweight Patapar 27-21T. It's so grease-proof that drops of oil placed on it will stay on the surface in little globules. They will not "crawl" or seep through.

High wet-strength, too

Like the other 179 types of Patapar Vegetable Parchment, the new type 27-21T is completely insoluble.

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Regular types of Patapar, plain or colorfully printed, package and protect foods such as butter, bacon, sausage, margarine, cheese, poultry. There are types of Patapar for drafting paper, separators for tiny batteries, rubber mold liners and many other industrial applications.

Send for Booklet T, "The Story of Patapar," and special "P-I" report on the new Patapar 27-21T with sample for testing.



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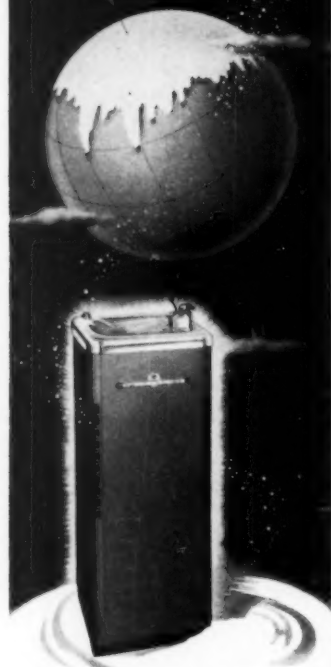
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- complete line for every need
- full 5-year warranty

For YOUR water cooler needs . . . see "Kelvinator" in your telephone directory . . . ask about our National User Plan for immediate service and delivery, coast-to-coast; or write to Kelvinator Water Coolers, 104-A Lucas Street, Columbus, O.

There is a better Water Cooler, it's

Kelvinator

Oldest Maker of
Electrical Refrigeration for the Home

get rid of, what to do with the money. In addition, the treasurer must also invest the surplus funds of the company and review the investments of the pension fund with the pension committee and the trustee.

At noon on Apr. 21, Harrison had a five-minute phone call from one of the company's brokers—the daily fill-in on market conditions. At 4:30 p.m., one of the vice-presidents of Cleveland Trust Co. arrived for a conference on the pension fund investments. He suggested several changes and left a memorandum with the treasurer. The conference lasted until shortly after 5:00.

III. Economic Policy

Economics, in some degree, is part and parcel of practically every problem that faces the management of Cleveland-Cliffs. It is the treasurer's job to make up forecasts on general business conditions and to spell out what effect these conditions will have on the company.

The treasurer must also analyze the prospects for specific industries—those in which Cleveland-Cliffs has a stake. The company is one of the chief suppliers of iron ore to the steel industry (in 1951 it shipped or purchased 13% of the Lake Superior total). It is vital for it to know what estimated steel capacity is for the next five, 10, or even 30 years. The treasurer makes the forecast.

He also looks ahead—statistically—at iron-ore sources, lake shipping, the coal industry, and electric power and light (the company has heavy power investments). Finally, as economist without portfolio, he probes into such general areas as business cycles and long-range forecasting. His reports are presented to staff officers at regular intervals.

IV. Stockholder Relations

There is hardly a week that the treasurer of Cleveland-Cliffs does not spend at least half a day with stockholders or their representatives. For the publicity-shy management, this is a major part of its public relations.

The treasurer believes, personally, that he must present the affairs of the company fully and accurately to stockholders and influential outsiders. If banking and finance people don't come to Cleveland, Harrison packs his bag and charts and goes to them. Over a year, he will usually make four trips to New York, at least two each to Boston and Chicago.

The annual report is a major project for the treasurer. His own staff does the work from start to finish; there is no outside counsel. The treasurer believes that too much slickness would hurt, rather than help.

The report is simply a straightforward review of the year's activities, an examination of each department, and financial statements—with voluminous notes. It is a formula that won a major award for the company in 1950.

V. Keeping Up With Trends

Intangible as it is, keeping up with trends is a highly important part of the treasurer's job. Partly, it means reading.

Harrison scans the front page of the Cleveland Plain Dealer, its editorials, financial page, and business page during breakfast. An hour after dinner covers the local afternoon papers. He gets the New York Times at his office, takes it home to read in the evening.

Squeezed into his work schedule of two or three hours at home is some magazine reading: Harvard Business Review, Fortune, BUSINESS WEEK. In the past few months, he has also read some books—Copeland's Executives at Work; Managerial Economics, by Joel Dean; What's Ahead for American Business, by Sumner Slichter. Then there is a stream of reports to skim and read—studies by the American Iron & Steel Institute, the Harvard Business School, the National Industrial Conference Board, the American Management Assn.

Politics is also part of keeping pace. The treasurer's interest is active, but mainly on a social level.

On Apr. 21, however, he asked board chairman Greene's advice on the extent to which he might properly participate in the campaign for a Presidential hopeful. "Limited," was Greene's suggestion.

There are also luncheon meetings—an average of three a week. Two of these are usually with social or business friends (the other is the regular company staff meeting).

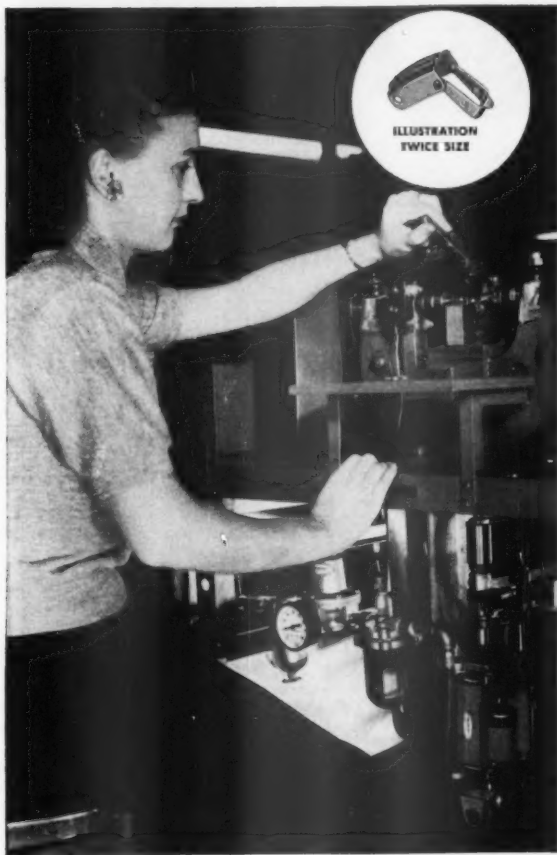
VI. What Makes a Treasurer?

Harrison, son of a well-to-do steel maker, is a man who thought more of finance and economics than he did of steelmaking. To please his father, he worked in a mill for three summers, then put in a full year after he graduated from college (Yale, 1932). But he scuttled it all for a \$90-a-month messenger job at New York's Central Hanover Bank & Trust Co., now The Hanover Bank.

By gradual stages, Harrison moved into the bank's investment department and from there to the firm of Lionel D. Edie, New York investment counselor. He headed Edie's investment department and became its iron-and-steel specialist.

Edie's reporting on iron and steel particularly impressed E. B. Greene, then president of Cliffs Corp. and

"CONTROLLED-AIR-POWER" SPINS A RIVET NO BIGGER THAN A PIN POINT 60% FASTER, INFINITELY BETTER...



The world over "watch bands by Kreisler" are known for their beautiful styling and superb craftsmanship.

Craftsmanship with Jacques Kreisler Manufacturing Company is not an idle phrase. It's a carefully achieved reality.

For example, take the tiny snap catch that holds a lady's prized watch secure on her wrist. It is made in two styles, Solid Gold or Gold Filled with stainless steel. The two parts are held together by Solid Gold or stainless steel rivets no bigger than a pin point. The heads are spun riveted and, before "Controlled-Air-Power" came on the job, with tedious care by a foot fed Riveting Machine. The operator, who had to be highly skilled, inserted the pieces in a nest, and closed the holding fixture. Her weight on a foot pedal brought in the riveting heads to spin the rivets from both sides.

From a quality standpoint, inspection had to be rigid. Because the operator had to "feel" her way with the foot pedal, product uniformity was difficult to maintain. Nervous tension and operator fatigue became serious problems.

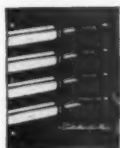
An electrically controlled Bellows Air Motor, plus tool room ingenuity, proved the answer. Now "controlled-air power" feeds the riveting heads with precision and speed. Production is up 60%, rejects 1% of the old rate, and operator fatigue a thing of the past.

In your plant, too, "Controlled-Air-Power" can make tough jobs easier and even routine jobs more profitable.

No matter what you make, nor how varied your operations, Bellows "Controlled-Air-Power" can contribute to better production efficiency: in greater output, in lower costs, in lessened rejects, in reduced worker fatigue.

WRITE FOR THIS FREE BOOKLET

Case history stories, diagrams, photo, production details, etc., showing how Bellows "Controlled-Air-Power" Devices can help you obtain more production at lower cost. No obligation. Write: The Bellows Co., Dept. BW652, Akron 9, Ohio. Ask for Bulletin CL-30.

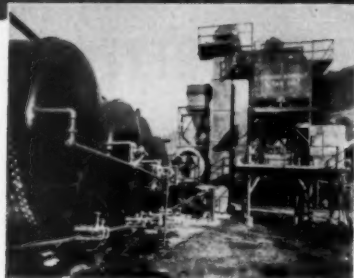


The Bellows Co.

AKRON 9, OHIO

CONTROLLED-AIR-POWER FOR FASTER, SAFER, BETTER PRODUCTION

"VIKINGS ARE THE BEST PUMPS WE CAN OFFER THE ROAD BUILDING INDUSTRY"



These are the words of Hetherington and Berner, Inc., of Indianapolis, the oldest and one of the largest designers and manufacturers of portable asphalt plants.

Three Viking pumps are a part of this installation. Two of them are steam-jacketed asphalt moving pumps and the third a fuel oil supply pump.

If you pump viscous liquids or have any other pumping problem, let Viking help. Write for bulletin series 52.



VIKING PUMP COMPANY

CEDAR FALLS, IOWA

THE ORIGINAL "GEAR-WITHIN-A-GEAR" ROTARY PUMP

TWO OF THE THREE VIKING PUMPS



This chain-driven, bracket-mounted Viking supplies fuel oil to burners.



Steam-jacketed, heavy-duty pump moves liquefied asphalt.

"FASTER, Smithers, FASTER!"

The sooner we send this coupon the sooner we'll get complete information on J & L Comparators!"



SEND TODAY

for Jones & Lamson's new booklet, "Comparators—what they are and what they do." In non-technical language, it describes the functions and applications of J & L Comparators. These precise optical instruments are used throughout industry for inspecting and measuring parts and products ranging in variety and size from pen points to propeller shafts.



JONES & LAMSON



OPTICAL COMPARATOR DIVISION
Machine Tool Craftsmen Since 1835

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Gentlemen: Please send me your booklet, "Comparators—what they are and what they do."

NAME _____
TITLE _____
COMPANY _____
STREET _____
CITY _____ ZONE _____ STATE _____

Cleveland-Cliffs. In March, 1937, he contacted Harrison and offered him a job. The treasurer today began work in the treasurer's department—supervising Cliffs' and Cleveland-Cliffs' investments.

• **Attributes**—What made Harrison a treasurer? There were three things, mainly: his experience, his intelligence, his liking for what he does.

A Phi Beta Kappa at Yale (majors: finance and economics), the treasurer has both a better-than-average intelligence and an exceptional memory. His staff contends that he recalls big and little events—even to seemingly inconsequential details—with equal ease.

He presents his ideas in a persuasive, organized manner. Deliberate and mild-mannered, he suggests, rather than directs, in his relations with his staff.

• **Work**—The work, though heavy, is not a burden to the treasurer. He likes it—a great deal.

At least three nights a week, he does several hours' work at home. On Apr. 21, he opened his briefcase at 8:05 p.m. Between then and 10:10, he went over the earnings report of the steel company, received in the morning mail; the banker's report on investments for the pension fund; some material and figures for the next meeting of the board of directors; a report from the American Management Assn.; a long-prepared report on investment in each of Cleveland-Cliffs' mines; and a sample suggestion for a letter to stockholders.

Before going to bed, he put his pocket memo cards in the top drawer of his dresser—not on the night stand. The treasurer frequently jots down on the cards ideas that come to him in bed. But the idea can't be just a whim; it must be good enough to make him get up and walk across the room to write it down. The bed-to-dresser distance is his private editing system.

Harrison hopes eventually to set aside an hour during his normal office day for the "private" exploratory thinking he now does on his pillow. Gradually, he feels his job is changing: More and more of the routine is shifting to his staff; a little more time is opening up for his main concern—policy.

• **Family**—Through the week the treasurer's home operates on a fairly Spartan standard. At breakfast, it is a family rule that father is not interrupted while he reads the paper. At night, there are usually several hours of briefcase work. Social life, for the most part, has to be put over until the weekend.

The treasurer is married to a pretty Vassar graduate (M.A., University of California). They have three children—two girls and a boy—and a full-time cook. They live in a "good" 10-room house, own one car (a Mercury), and belong to several exclusive clubs. They usually drink one cocktail before dinner.



Conference room in the sky

America is a nation on wings and wheels. We can't wait for the full-fledged formalities of the past—when conferences came complete with agenda, protocol and secretaries—to solve our problems. We take them with us wherever we go. Often decisions are put into action before the train reaches its station or the plane touches ground.

Planes, like most things that move these days—whether by wheel on the ground or by prop through air or water—make good use of the unique qualities of Berylco beryllium copper. In fact, the effective employment of such advanced materials is one reason for America's outstanding record of achievement in commercial and military aviation.

Berylco is employed, for instance, in valve guides, fuel injector parts, pump couplings. It increases

the sensitivity, and therefore the accuracy, of instruments. It makes strong, vibration-proof electrical connectors.

No single property accounts for the usefulness of beryllium copper. It is an extremely versatile alloy, offering many combinations of desirable qualities. Because of its high conductivity, it is unexcelled for heavy electrical equipment. Because of its great strength, it makes long-lasting bearings, gears, valve parts.

Berylco belongs in your future, too. We invite you to take advantage of the technical knowledge and skill of the world's largest producer of beryllium copper. We will be glad to work hand in hand with you on your problems.

THE BERYLLIUM CORPORATION

READING, PENNSYLVANIA

OFFICES IN PRINCIPAL CITIES AND TRADE CENTERS



**TOMORROW'S
PRODUCTS
ARE PLANNED
TODAY—
WITH
BERYLCO
BERYLLIUM
COPPER**

POLITICS



ARENA where Democrats and Republicans will nominate their Presidential candidates this year is Union Stock Yards' & Transit Co.'s International Amphitheatre, a building roughly the size of a city block.

Chicago Gets Ready for the National



TELEVISION cables—55 of them—will hook the conventions up for direct-to-coast broadcasting.



COOL AIR from huge ducts will keep the building's temperature 15 degrees cooler than outside.



COMMITTEE rooms will be partitioned off in the building's north wing.

Conventions

Chicago has played host to 19 national political conventions since 1856. Binge No. 20 comes up this July, when Democrats and Republicans will gather in the city to pick their respective 1952 White House candidates.

This year's party promises to be the biggest and best ever. For the first time in history, delegates will enjoy the cool comforts of air conditioning. Also for the first time, television will carry the proceedings from coast to coast. Attendance at each convention is expected to hit about 20,000.

• **Cooler Inside**—1952's sweatless confusion will take place in the International Amphitheatre, a huge building owned by Union Stock Yards & Transit Co. and run by an aggressive young businessman named William Wood Prince (BW—Nov. 25 '50, p80). Prince lured the conventions away from their previous home, the somewhat larger Chicago Stadium, by promising to air-condition his 29,000-sq. ft. arena and by pointing out various other advantages of the amphitheatre: The building has two large wings where press, radio, and television facilities can be set up. It



Benzal Chloride

Males are gaudier than in Grandpappy's day. Colors flaunted by fashion-plate foursomes are made with benzal chloride, one of many Hooker Chemicals supplied to the dyestuff manufacturers,

Wherever you go, you'll find
Hooker Chemical
BUILDING BLOCKS

Lauryl Chloride

Feet are safer from lurking bacteria in the shower room—thanks to disinfectants made with Hooker Chemicals like lauryl chloride. This Hooker "building block" also helps make synthetic rubber, rayon and other useful products.



MANUFACTURERS—Hooker Chemical "building blocks" help make thousands of everyday things. Maybe your product can be made better with Hooker Chlorine, Caustic Soda, or one of the many chlorine compounds developed by Hooker specialized research. For interesting non-technical facts that will help you decide, send today for the free booklet, "Story of Hooker Chemicals."

From the Salt of the Earth

HOOKEE ELECTROCHEMICAL COMPANY

21 FORTY-SEVENTH ST., NIAGARA FALLS, N. Y.
New York, N. Y. • Wilmington, Calif. • Tacoma, Wash.

CHLORINE • CAUSTIC SODA • PARADICHLOROBENZENE



another job for **Brainard TUBING**

ROADBED FOR SMOOTH CONVEYING

• Conveying systems take continual punishment . . . that's why Brainard electric-welded steel tubing is so widely used for conveyor rollers.

With Brainard tubing, the weld is as strong as the wall section, assuring uniform strength throughout. A carefully controlled, smooth finish keeps friction—and thus wear—to a minimum. And . . . electric-welded tubing is far more economical than other types.

Brainard's integrated production facilities insure quality control throughout manufacture . . . from ore to finished tubing. You can depend on Brainard service for your needs.

EASILY FABRICATED

Brainard tubing is a uniform product made to close tolerances. Has good machining qualities and finish can be supplied as specified. Easily fabricated—can be beaded, expanded, swaged, spun, flanged, upset, grooved, fluted, flattened, tapered, and otherwise formed. Supplied straight or fabricated, sizes ½" to 4" O.D.; .025 to .180 gage.

Fast delivery on certain sizes. For further information or catalog, write Brainard Steel Division, Dept. P-6, Griswold Street, Warren, Ohio.

WARREN, OHIO



DISTRICT OFFICES

ATLANTA BALTIMORE BUFFALO CHICAGO CINCINNATI
CLEVELAND COLUMBUS DAVENPORT DES MOINES DETROIT
GRAND RAPIDS INDIANAPOLIS MILWAUKEE NASHUA
NEW YORK PHILADELPHIA PITTSBURGH ROCHESTER
SAN FRANCISCO SYRACUSE TOLEDO

"... Estimates on what the networks are spending run to \$20-million . . ."

POLITICS starts on p. 78

also has smaller rooms for top-level conferences, private buttonholing activities, and the like.

Union Stock Yards will get a rental of \$6,500 a day for the hall. The company says this is "well below" what it gets for ordinary events. Each convention will last four days.

Cost of air-conditioning the arena will run close to \$500,000. The building's management thinks it will end up with the biggest air-cooling installation in the country. Huge ducts 60 ft. above the seats will circulate cooled and filtered air, keep the delegates 15 degrees cooler than if they transacted their business outdoors.

• **Television**—This year's other big first—nationwide TV coverage—calls for staggering expenditures and more elaborate facilities than were ever set up before at a national convention. Estimates on what the networks are sinking into the affair run from \$500,000 to \$20-million. Best guess seems to be that the cost will range around \$8-million, which is the amount being put up by the convention-going networks' three big advertising sponsors: Admiral Corp., Westinghouse Electric Corp., and Philco Corp.

The television and radio networks themselves, rather than the building management, will shoulder the cost of readying the amphitheatre for broadcasting. The entire second floor of one wing will be taken up by radio and TV studios. Platforms for TV cameras will be built on the arena walls.

• **Telephone**—Illinois Bell Telephone Co. is pitching in by installing 55 television circuits to connect the networks with the amphitheatre and with the Conrad Hilton Hotel, headquarters for both conventions. The company is also putting up a special building next to the amphitheatre, where it will set up equipment for amplifying the TV broadcasts.

In addition to that, the phone company has business of its own to attend to. Bell estimates that the amount of equipment needed at this year's convention will exceed previous get-togethers by about 50%. Not counting equipment needed by the candidates themselves, over 1,000 telephone instruments have already been ordered for the amphitheatre, plus 20 telephoto circuits, 215 circuits for radio networks, 15 extra switchboards in the convention building and in the Conrad Hilton.

• **Cost-Sharing Plan**—All other expenses of construction will be shared



The Most Important Factor in Buying Maintenance Paint

When analyzing painting costs be sure to watch the watch. Painting time . . . man hours . . . labor charges represent 80% of the total cost of a paint job. The cost of the paint is relatively unimportant.

That is why you can more than afford to pay for Barreled Sunlight's *premium* quality. Only a few pennies higher per gallon than most good paints, Barreled Sunlight actually cuts your painting costs to the bone. It gives you more yardage per gallon. You buy less paint. And, *four times more important*, it cuts down the number of man hours required to do the job.

BARRELED SUNLIGHT PAINT COMPANY
1-F Dudley St., Providence, R. I.



Try this on-the-wall test

Compare a gallon of Barreled Sunlight with a gallon of any other paint. Thin each, according to directions, and see which gives you more working paint. Apply each on a wall and see which covers more and looks better. Yes, and by all means, see how much *faster* your maintenance painter can work with famous Barreled Sunlight.

Remember, paint performance on the wall is on the level. Talk it over with your nearest Barreled Sunlight representative. Write and he'll call.

Barreled Sunlight *Paints*

In whitest white or clean, clear, wanted colors,
there's a Barreled Sunlight Paint for every job

IT ALWAYS COSTS MORE NOT TO PAINT!

For over half a century those who know the best in paints . . . for all types of buildings . . . have strongly insisted on famous Barreled Sunlight



Ernie Walerius...

Optometrist to the Air Force

Pilots looking down at the earth from 200 feet altitude see a lot of detail—but all blurred. Aerial cameras—the eyes of the Air Force—had the same trouble, too, until a famous camera maker solved the problem. He designed a shutter that would work fast enough to get clear photos at low altitudes.

Next step was to build it: the five laminated steel shutter sections had to match each other perfectly. And since each lamination was only 10 to 15 thousandths of an inch thick, drilling 100 holes (47 were 0.046 in. in diameter) was out of the question. They had to be located perfectly, with no margin for error. Though few would even attempt a job like this, Daco went ahead. With skilled toolmakers like Ernie Walerius on the job, Daco had little difficulty producing the intricate dies which solved the problem for the camera maker and the Air Force.

With over 20 years' experience Daco has the ability to take jobs like this in

stride. In fact, Daco handles an entire instrumentation program from initial design stage to final assembly. If you have an instrumentation program, it will pay you to discuss it with Daco. Meanwhile, to learn more about Daco, write for a free copy of DACO DOINGS.

DACO MACHINE & TOOL COMPANY
202 Tillary Street, Brooklyn 1, N. Y.

Do you have an Instrument Production Problem?

Daco may be the answer, as it was with these tooling and instrument programs...

Gun Sights: machine gun, cannon

Aerial Carburetors

Flight Instruments

Aerial Pumps

"Classified" assignments in electro-mechanical controls.

DACO

for Instruments and Instrument Tooling

"... the city is rushing through a \$1.8-million repaving and lighting job..."

POLITICS starts on p. 78

on a 50-50 basis by the Republican and Democratic parties—since they'll both be using the same facilities. (Republicans will get the first crack, July 7.) Together, the two parties will spend an estimated \$600,000 on a speaker's stage, pressrooms, photographers' darkrooms, caucus rooms—together with separate expenses for tickets, badges, flags, and whatnot.

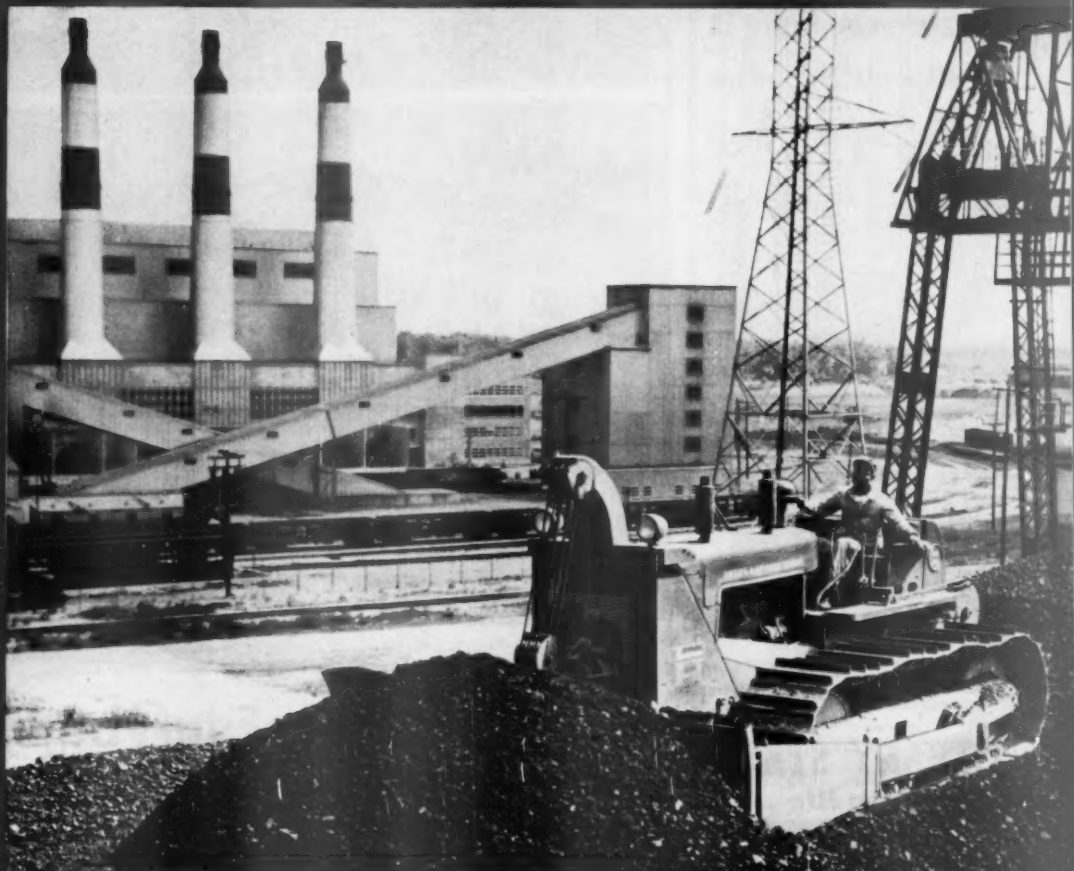
Much of this expense will be covered by the \$500,000 fund that Chicago businessmen raised to get the conventions for their city. This fund will be split equally between the convention arrangements committees of the two parties.

• **Big Crowd**—In addition to the delegates themselves, there will be about 3,000 press, radio, and television people at each convention. Figure in the chance visitors, and you get a sizable crowd. But Chicago hotelmen aren't worried. They point out that 20,000 to 25,000 retail buyers flood the city each January for a furniture powwow, and nobody has to sleep in the park. Convention attendance is expected to be a good deal smaller than that.

Transportation for all these people will be handled by the Chicago Transit Authority and Chicago Motor Coach Co. CTA has an elevated train line that runs from downtown Chicago and connects with a branch line owned by Union Stock Yards. The branch line runs direct to the amphitheatre. Chicago Motor Coach plans to run special buses over the same route. For taxis and private cars, there's parking space around the amphitheatre that can accommodate 40,000 vehicles.

• **The Retailers**—Merchants of Chicago's big shopping artery—State Street—helped raise the money Chicago businessmen put up to bring the conventions to the city this year, but they expect little extra business from convention delegates. Past experience has showed them that people at conventions are either too busy or too tired to spend much time looking at store windows. Still, in what appears to be a mood of pure civic pride, the State Street Council is planning to dress for the occasion by putting up special decorations.

Caught up by the same spirit, the city itself is rushing through a \$1.8-million repaving and street lighting job in the area of the amphitheatre. City cops, likewise, have been instructed to press their uniforms and to smile upon delegates when the big month comes.



Let's make some electricity!

Turn on the light . . . eat a dish of frozen fruit . . . watch TV . . . use electricity.

People use more and more of it each year, to do more and more things.

Helping to bring you electrical power—at a low cost—are big red crawler tractors like the International TD-24 you see here.

King of the coal pile, the big red TD-24 is manhandling an immense stock pile of coal—compacting it, leveling it, building up the reserve for the hungry hoppers of a generating station that “makes” electricity.

Other International crawlers do construction work at dam-sites where water power will do the job that coal does here.

In fact wherever there's work like this to be done—at low cost—it pays to call on the big red machines with the IH trade-mark.

INTERNATIONAL *POWER THAT PAYS*

INTERNATIONAL HARVESTER

Industrial Power . . . McCormick Farm
Equipment and Farmall Tractors . . . Motor Trucks
. . . Refrigerators and Freezers

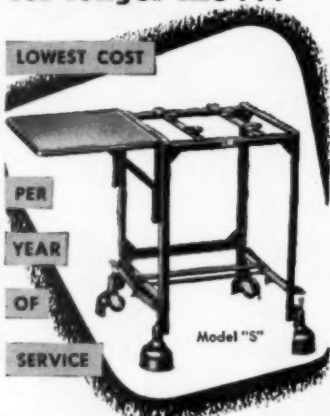


*"The only quick, sure
'breakaway' I know of is
with an Aeroquip
Breakaway Coupling."*

Aeroquip

FLEXIBLE HOSE LINES
DETACHABLE, REUSABLE FITTINGS
SELF-SEALING COUPLINGS
BREAKAWAY COUPLINGS • HYDRAULSCOPE
AEROQUIP CORPORATION, JACKSON, MICH.

TIFFANY STANDS for longer life . . .



Sturdy Tiffany Stands provide superior protection for costly office machines, reduce wear and maintenance costs. Open adjustable top lessens vibration, noise and operator fatigue. A firm foundation for every type of office machine . . . first choice of Office Workers and Management everywhere!

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LITERATURE ON REQUEST

TIFFANY STAND CO.
POPLAR BLUFF, MISSOURI

SMALL BUSINESS



PROMOTION drew sports lovers to splashy opening of Mages Sporting Goods Co.'s fifth store in Chicago. Fanfare and bargains attracted 20,000 Americans turned athletic.

A New Trend: Everybody's

When Mages Sporting Goods Co. opened its sixth store May 26 in the somewhat secluded lobby of Chicago's Merchandise Mart, the trade was puzzled. Promotion-conscious Mages had spotted stores one through five in heavy-traffic areas, banking on a strong, pull-them-off-the-street appeal.

But there was no madness in the Mages brothers' choice of site number six. They knew that the Merchandise Mart, whose 25,000 workers are just too far from Loop stores for noon-hour shopping, holds a big chunk of the market that jockeyed their sporting goods chain to first place in the Midwest—a mass-market that has brought about big and booming changes in the whole sporting goods field.

• **All in the Family**—America's interest in all kinds of sports has perked up tremendously since the war. Especially, more and more people are taking to individual rather than mass sports—and Mages has made the best of it.

The four Mages brothers—Irving, Ben, Morrie, and Sam—learned their retailing A, B, C's from their father Henry, a jobber who moved odd lots of merchandise. One day, Henry got hold of a closeout lot of sporting goods equipment. It moved so quickly he started looking for more. Soon he and the boys became masters at finding

and moving closeout sporting goods merchandise.

• **In Unity . . .**—By 1947 the brothers had their own sporting goods stores in Chicago. Morrie and Sam were partners; Irving and Ben each had their own spots. That year Irving, Morrie, and Sam joined forces; Ben came in the next year.

The merger was a brainstorm. Since the brothers joined hands, Mages' volume has quadrupled to a \$3.5-million annual gross. The chain is one of the largest outlets for fishing, hunting, and golf equipment. It sells more bowling balls than any other sporting goods firm in the country.

• **Too Fast?**—When Mages opened its fifth store with much fanfare in April, eyebrows went up. Said one trade official: "I'd be afraid they were moving too fast, if I didn't know Irv."

Irving is president of Mages. He is an extremely cautious financial manager, insists on a conservative approach to the firm's buying ventures. Each of the other brothers heads a separate department. Ben is sales head, and Sam runs the merchandising end. Morrie, as advertising director, fronts for the firm—makes TV appearances and handles promotion.

The brothers' flare for flashy, three-ring promotion is partly responsible



SERVICE lured hunters to Mages at 6 a.m. to get their licenses the day the hunting season opened last year. Ammunition sold fast. It's all part of . . .

Going Out for Sports

for Mages' rapid growth. But there are two other important keys: credit and pricing.

- **Play as You Pay**—Sporting goods was a comparatively new field for credit selling when Mages moved in with its play-as-you-pay program, the standard budget plan that other fields have been using for years.

With credit selling, Mages began to tap a market that ripened during the war, but was practically untouched—potential sports lovers in the middle and lower income groups. Before the war sports equipment was sold almost entirely on a cash basis. The mass market couldn't afford it and shied away. Now, at \$1 a week, say, almost everyone can buy equipment for sports such as bowling that costs around \$30.

- **A Bit Crowded**—What the brothers call moment-of-madness sales and carnival of savings are bywords at Mages. The four are at home at the special purchase or closeout sales of wholesalers or manufacturers, and are able to pass the benefits along to their customers.

Mages has never been known to violate fair-trade or individual manufacturer's pricing agreements. However, they do crowd price schedules a bit by packaging their merchandise. A customer who buys a \$22.95 bowling ball at full list price, for example, is entitled

to buy a pair of shoes and a carrying bag for \$1 each. So he gets a full kit for \$24.95.

- **Something Doing**—Mages always has something on the fire in the promotion department. Grand openings are wild, pretentious affairs.

Opening festivities for store number six were typical. The Merchandise Mart lobby was a little cramped to put on a big show. So the Mages took to the Chicago River. They hired an excursion boat to cruise up and down the river in front of the Mart. The boat was fitted with grand opening signs and towed a balloon that carried the message. On deck, a band kept up a steady stream of martial music.

- **A Big Way**—When the Mages aren't busy with a grand opening, they are whipping up some other promotional stunt. They stage weekly bowling clinics, TV shows, all sorts of contests.

On the first day of the hunting season last winter, which happened to be a Sunday, Mages got a state licensing official to set up in one of their stores. The store opened at 6 a.m., and coffee was served to the sportsmen throughout the morning as they lined up to get their licenses.

- **Part of the Whole**—Mages' growth, however, isn't entirely due to forces within the company. It is a clear reflection

If your answer to either of these questions is YES...

1. Have you any heavy machine tools that are not operating at full potential (possibly due to obsolescence, missing parts or need for redesign)?

2. Do you need any big "special" machine tools...the types that take original equipment suppliers two years to build?



...call for a Simmons Rebuilding Engineer

Examine your plant equipment again with these questions in mind. If your answer to either is "Yes," Simmons may be able to help you in two ways:

- **First**, by rebuilding used machine tools, now in your plant, for as low as 50% of the cost of new ones...and delivering them, with new-machine accuracy guaranteed, up to 300 days sooner.

- **Second**, by transforming heavy machine tools, no matter how old, into modern special-purpose units ready for 24-hour application on either defense or civilian production.

Simmons' unique rebuilding process is described in "The Simmons Way," a copy of which is yours for the asking.

Simmons Machine Tool Corporation
1735 North Broadway, Albany 1, N. Y.



SIMMONS ENGINEERED REBUILDING
Gives Machine Tools a New Lease on Life



in town . . .



on the farm . . .



in pavements . . .



in buildings . . .

CONCRETE is durable,
low-annual-cost construction

PORTLAND CEMENT ASSOCIATION

33 West Grand Avenue, Chicago 10, Illinois

A national organization to improve and extend the uses of portland cement and concrete . . . through scientific research and engineering field work

tion of a big change that has taken place in the whole sporting goods field—and in America's tastes in sports. Before the war people were inclined to limit their participation in sports to buying tickets to watch other people play.

The war changed the picture. People worked around the clock in defense plants, needed relaxation. Industrial leagues for bowling and softball grew up, stuck after the war. The postwar years found more people than ever before actually taking part in sports. And they had more money and leisure time to enjoy them.

• **New Tastes**—Manufacturers and retailers quickly recognized the trend to individual sports and launched full-scale promotions to help it along. Relaxing of credit restrictions made it easier for people to buy equipment.

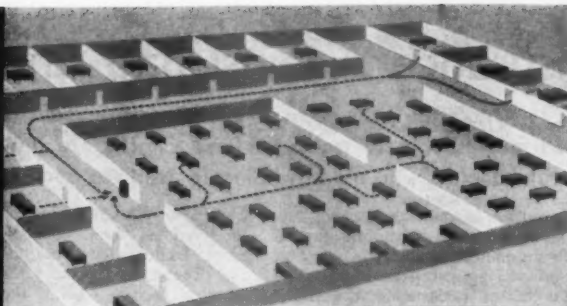
Not that Americans aren't still flocking to the Saturday afternoon football game. G. Marvin Shutt, executive secretary of the National Sporting Goods Assn., feels that interest in spectator sports is at an all-time high. Before the war 20,000 was a big crowd at an Ann Arbor or other big-college football game. Today a Saturday afternoon crowd under 100,000 is disappointing. The turnout at professional baseball and football games, too, is way ahead of prewar.

• **Early Start**—But the trend to individual sports has moved the fastest. The boom really started in the 30's, according to Bureau of the Census figures. From 1931 to 1937 sales of baseball equipment and inflated goods—basketballs, footballs—dropped, while bowling and billiards equipment multiplied seven times. In the past 10 years sales of fishing licenses have more than doubled; hunting licenses went up more than 80%.

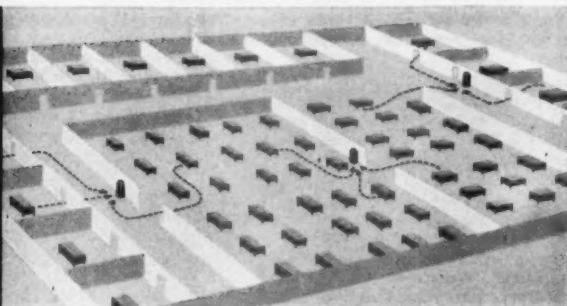
The switch from group and spectator to individual sports has been a boon to manufacturers and retailers, for obvious reasons. A dozen men playing touch football use just one ball. If the same dozen go fishing, each one needs a rod, reel, tackle, and other equipment worth at least \$25.

• **Makeup**—The entrance of the middle masses into the sports market has led to a gradual change in the industry's makeup. Sporting goods stores used to be divided into two widely separated classes. The specialists in athletic goods sold team equipment to schools, colleges, and clubs, and the sporting goods stores catered mostly to men of means, the sport fishing, hunting, and golfing set. Today it's different. The bulk of the retail sales are in the medium- and low-priced fields. Many stores that subsisted almost entirely on team outfitting in the past have now built up substantial over-the-counter businesses in sporting rather than athletic goods.

PLAN A
1 Water Cooler - 60 Employees
130 ft. Average Travel Distance



PLAN B
3 Water Coolers - 60 Employees
80 ft. Average Travel Distance



Which Floor Plan Saves \$1780 in Five Years?

New General Electric Work Center Plan for Water Cooler Placement shows exactly how much can be saved by a more efficient drinking water layout

Long trips to drinking water can be surprisingly expensive in terms of wasted man-hours. In the example above two more water coolers cut these costs enough to pay for the additional equipment the very first year—and to bring a net saving in five years of \$1,780.

A new study by General Electric makes it now possible for you to check your own drinking facilities

Look for your local G-E dealer's name in the classified pages of your telephone book.

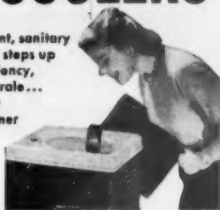
quickly and easily. You can see for yourself whether additional units will save you enough to make their purchase worthwhile.

Fill out the coupon below and send for your free copy of the booklet, "G-E Work Center Plan for Water Cooler Placement." It contains all the information you need to find the most economical plan for your business establishment.



WATER COOLERS

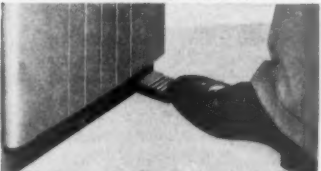
Cool, convenient, sanitary drinking water steps up employee efficiency, health, and morale... boosts sales by building customer goodwill.



ANGLE-STREAM, NON-SQUIRT BUBBLER...
Bubbler guard of polished aluminum alloy. Stream angled to avoid water dripping back. Slotted nozzle prevents mischievous squirting.



DIAL THE WATER TEMPERATURE YOU WANT... Control knob easily reached behind front panel, yet concealed against tampering. Temperature automatically controlled.



SURE-TREAD FOOT PEDAL CONTROL... Easy to use—permits drinking when hands are full. Sanitary—avoids transfer of germs from user's hands to bubbler.

You can put your confidence in—

GENERAL  ELECTRIC

FREE!

ILLUSTRATED BOOKLET
GIVING PAYROLL SAVINGS
TABLE, 5-STEP METHOD,
AND TYPICAL FLOOR PLAN



General Electric Company, Section BW-1
Air Conditioning Division, Bloomfield, New Jersey
I am interested in learning more about the G-E Work Center Plan.

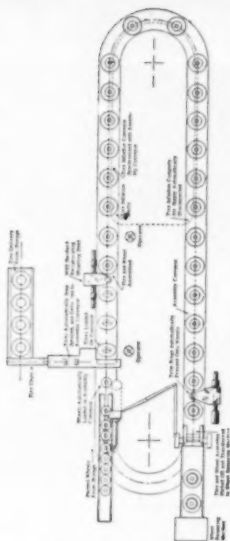
NAME

COMPANY

ADDRESS

CITY..... ZONE..... STATE.....

**4 OPERATORS
INSTEAD OF 16
with production
increased 12½%**



It used to take 16 men and 3 stationary mounting machines to assemble 3200 passenger car tires and tubes on an 8 hour shift. It was a hand operation that required skill and hard physical work. When a regular operator was absent production dropped.

After MHS engineers integrated these assembly operations with materials handling it requires only 4 operators and one machine to handle 3600 units in 8 hours.

It might pay big dividends to have MHS engineers look over some of your operations. It won't cost you a cent to find out how much you could save.

**Mechanical
Handling**



Systems, Inc.

4610 NANCY AVE. • DETROIT 12, MICH.

OFFICES IN PRINCIPAL CITIES

In Canada:

Canadian Mechanical Handling Systems, Ltd.

Insurance Against Bad Checks

That's the sole business of this Tennessee company, which now serves 17 policyholders. Checks are only those of auto dealers who bid in wholesale used-car auctions.

If you run a wholesale used-car auction, you can buy a policy from the Fidelity Insurance Co. of Tennessee that insures you against bad checks. And you'll be in exclusive company—the Fidelity had only 17 policyholders the last time it looked, and it never expects to have more than 100 policyholders.

Fidelity is the only insurance company of its kind, according to N. C. Maney of Murfreesboro, Tenn., who founded it last October. Fidelity now writes its bad-check policies in 11 states, and it is branching out on a national scale.

• **Burnt Child**—Maney got into his unique business the hard way—by being peppered with bouncing checks while he was in the used-car auction business in Murfreesboro. He went into auctioning after the Navy released him in 1947. He soon found it took weeks to find out if he had a profit or a packet of rubber checks.

When his business expanded to include auctions at Knoxville, Tenn., and Huntsville, Ala., Maney discovered his worries and his attorneys' fees were multiplying faster than his business volume.

Like other used-car auction operators with the same problem, Maney appealed to insurance companies for protection against worthless and forged checks. Like them, he found no casualty and surety company anywhere in the country that was interested in writing such policies.

Maney and other dealers even turned to Lloyd's of London, which has a reputation for being willing to insure anything but a building that's already burning or a ship that's already awash. Insure used-car dealers' checks? Uh-uh, said Lloyd's.

• **Do It Yourself**—Maney then decided to set up his own company to fill the need that he had observed at close range.

Maney lined up the \$50,000 capital required by Tennessee law and opened an office with Homer Blitch, an Air Force veteran formerly with National Life and Accident Insurance Co. of Nashville, Tenn.

Before the new Fidelity Insurance Co. of Tennessee could lure customers, it had to get its premium rates approved. That wasn't easy. The Tennessee Insurance Dept. was baffled when Maney submitted his proposed rates; there was no precedent anywhere in the

country for this kind of insurance. Even the National Assn. of Casualty and Surety Underwriters could only suggest that Tennessee let the rates go into effect on a trial basis if they looked reasonable.

• **Who Buys**—When Maney got his go-ahead from the Tennessee bureau, he started looking for customers who were willing to post the \$500 deposit he requires as guarantee of premium payments. He charges wholesale dealers from about \$2.50 to about \$5 per car in a sale, whether the car goes for cash or a check.

There are about 250 wholesale used-car auctions in the country, Maney says. They serve as a clearinghouse where dealers can dispose of slow-moving stock and buy cars more popular in their communities.

"A Ford dealer," Maney explains, "gets a lot of used Fords in trade for new cars. But he needs Plymouths and Chevrolets to balance his stock of used cars. So he takes a bunch of Fords to the auctions, sells them, and buys the other makes he needs."

"Or a Chevrolet dealer may occasionally get a big Buick or a Chrysler in trade. Big cars don't sell well in the small-town used-car market. So the dealer takes them to the auctions and sells them to city dealers. The auctions are also about the only place to sell taxicabs and rental fleet cars—new car dealers seldom accept them in trade."

The biggest wholesale auction, according to Maney, is in Concord, Mass. It handles 300 to 400 cars a week, and Fidelity insures the checks. Many other auctions handle from 100 to 250 cars a week.

• **Cutting Losses**—Maney, in effect, has a credit-rating bureau as well as an insurance company. He discourages auctioneers from accepting every check tendered and relying on Fidelity to hold the bag for the bad ones. Fidelity pays the dealer only 90% of any loss, and auctioneers can accept checks only from dealers whose credit has been cleared. The company won't insure auctions in which individuals as well as dealers participate.

"You can't insure everybody's check," says Maney. "There are 60,000 used-car dealers in the country, and it's enough of a job keeping up with them and their buyers."

Maney's office is compiling files on all known used-car buyers in the wholesale market. The company sends file

Steel sleeves that keep their shape

RAW asbestos is mined in chunks, then crushed into coarse fibers like the ones shown below. But before its fireproof quality can be put to commercial use, the coarse fibers have to be reduced to a fluff that looks like cotton candy. This calls for an asbestos disintegrator, a machine that whips the fibers apart between a series of pins mounted in two whirling cages, one revolving inside the other.

One manufacturer found the steel pins were wearing out too quickly, due to the abrasive action of the asbestos fibers. Because some of the pins wore faster than others, the cages were thrown out of bal-

ance. And when the pins were hardened to resist wear, they became brittle and broke.

Then he had an idea: Why not put steel sleeves over the pins? The sleeves could be hardened for maximum wear resistance, while the pins provided the necessary strength. But where could he find steel sleeves that would do the job?

The manufacturer experimented with various metals and alloy steel tubes, but none of them filled the bill. He finally tried Timken® 52100 steel tubing and his problems were over! Because of its uniform hardenability, the Timken tubing wore evenly, kept the cages in balance. In addition, the

tubing lasted much longer, saved him 15 to 20% in sleeve replacement.

Timken seamless steel tubing is made by a piercing process that *forges* the steel. The red-hot metal is worked from the inside and outside to give it outstanding toughness and strength.

This is one more problem that can be stamped: "Solved—by Timken Alloy Steel". For help with *your* steel problem, write The Timken Roller Bearing Company, Steel and Tube Division, Canton 6, Ohio. Cable address: "TIMROSCO". Tapered Roller Bearings, Alloy Steels and Seamless Tubing, Removable Rock Bits.

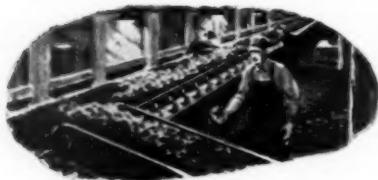
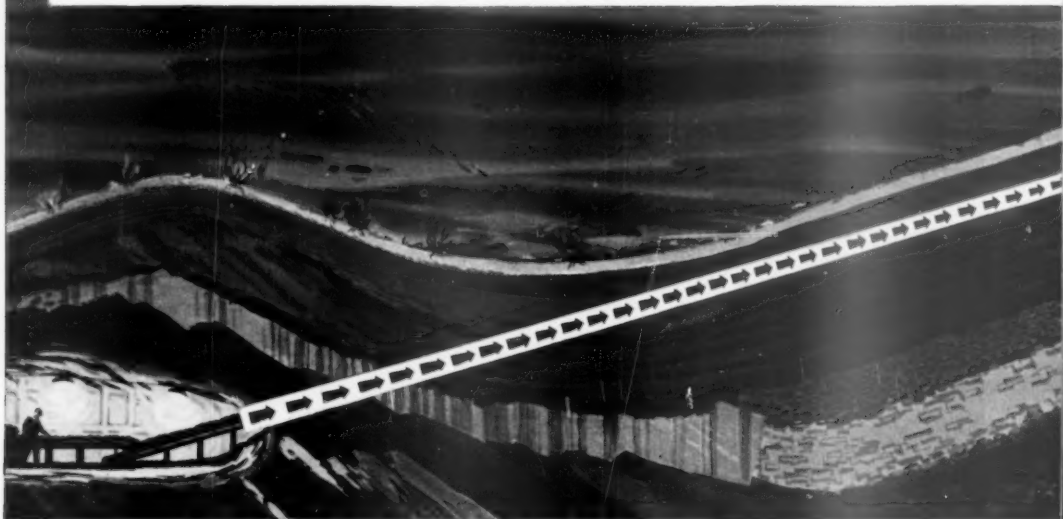
ANOTHER PROBLEM
SOLVED
BY
TIMKEN ALLOY STEEL

TIMKEN
Fine Alloy
STEEL

COPR. 1952 THE TIMKEN ROLLER BEARING COMPANY

SPECIALISTS IN FINE ALLOY STEELS, GRAPHITIC TOOL STEELS AND SEAMLESS TUBING

This submarine "Rubber Railroad" dives 3 miles under the sea!



World's most unusual iron mine is probably the Wabana Mine in Newfoundland. One of the British Empire's richest ore mines, its diggings extend three miles out from shore and 1,600 feet below sea level. For years this important source of ore was worked by slow, intermittent hand loading.

Later, mechanical equipment and track transport were used in an effort to bring the iron ore to the surface more rapidly.

Today's huge increase in ore demand made even more efficient means of handling output imperative. Seeking a way to raise the daily tonnage to a new high, the mine operators called on the G.T.M.—Goodyear Technical Man—to help design a "rubber railroad"—a conveyor belt system like those which have set tonnage records the world over.

Calling on Compass Cord Belts to carry the load, the G.T.M. belted a slope conveyor system of ten "flights"—lifting its load a thumping 1,730 feet to dwarf every known lift as it sets a world's record for vertical climb. This system of ten belts—each bodied with rope cords in the load-carrying section—will haul a thousand tons of ore each hour up the slope.

With this system—now in process of installation—the G.T.M. now holds the record of belting 15 of the world's highest slope lifts, including the top three—the three longest single-flight



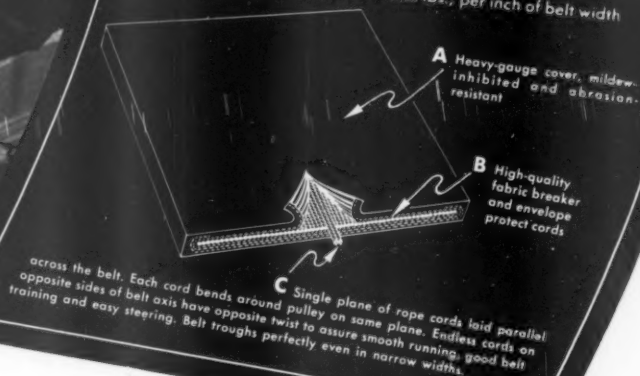
GOODYEAR INDUSTRIAL RUBBER PRODUCTS



-Specified

COMPASS CORD CONVEYOR BELT

for belt tensions from 200 to 600 lbs. per inch of belt width



conveyors—and most of the multimile “rubber railroads” ever built.

By all odds, he's the man who knows conveyor belts best. So turn to him with your haulage problems — above ground or below, over short or long distances. He can show you the way to

longest service at the lowest over-all cost. Write the G.T.M. today, Goodyear, Akron 16, Ohio.

LOOK FOR YOUR GOODYEAR INDUSTRIAL RUBBER PRODUCTS DISTRIBUTOR in the yellow pages of your Telephone Directory under “Rubber Products” or “Rubber Goods.” He handles Hose, Flat Belts, V-Belts, Molded Goods, Packing, Tank Lining, Rubber-Covered Rolls, built to the world's highest standard of quality.

Compass—T.M. The Goodyear Tire & Rubber Company, Akron, Ohio

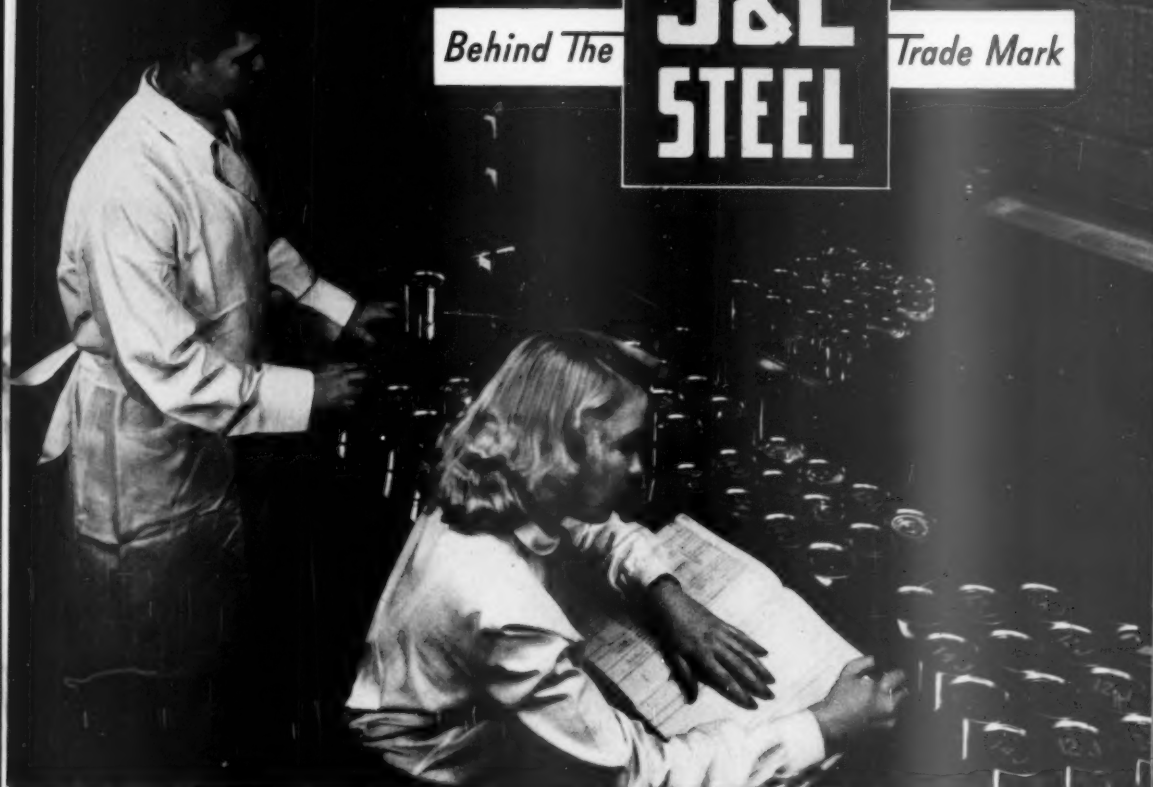
GOODYEAR

THE GREATEST NAME IN RUBBER

Behind The

**J&L
STEEL**

Trade Mark



Color photograph by d'Arazen

STEELMEN are Canning Fruits and Juices in the Never-ending Search for Better Steel

"Putting up" prunes and fruit juices may seem like an odd occupation for steel technicians. But, at one of J&L's laboratories, where tin plate for food containers is evaluated, canning is one of the many test procedures.

The food is packed in cans made from selected lots of J&L tin plate, thin steel coated with tin, sealed, and cooked at sterilizing temperature. The cans of food are placed in a controlled temperature storage room, where the heat accelerates any action that may be reducing the vacuum within the can.

By measuring the vacuum loss, as it occurs, technicians can estimate what the life of the test cans would be under normal storage. This knowledge helps in controlling the quality of tin plate to make sure canned foods on your grocer's shelf continue to have long storage life.

Quality control guides every step in the production of J&L tin plate and other steel products. It combines with research—another of the activities that go on behind the J&L trademark—to assure better steel for every application.



JONES & LAUGHLIN STEEL CORPORATION
PITTSBURGH 30, PA.

"... When 11 out of 18 checks, a \$9,000 loss, proved sour, the firm was nearly out of business..."

INSURANCE starts on p. 88

cards to auction operators, indicating each buyer's trustworthiness. If the card is typed black on white, the dealer's credit is solid. If it's typed red on white, the dealer's check is insurable, but the man's an auction troublemaker: He's likely to stop payment on a check or refuse a car after submitting the high bid. If the card is pink, it means the man gives bum checks and must pay cash.

• **Loss Record**—Blitch has the job of keeping tabs on losses and trying to cut them. He figures that the company's losses run initially about 150% of premiums. That would bankrupt the company in five minutes, except that it can usually recover on the check or else get the car back.

Blitch tries to work things out diplomatically. He first suggests that the buyer has made an inadvertent mistake, which he will naturally want to rectify as soon as possible.

If that doesn't work after a reasonable time, Blitch removes the velvet glove. He starts court action, if necessary, to recover the car. So far, Blitch says, recoveries have run about two-thirds of losses, which cuts the loss ratio to 50% instead of 150%. Of course, there are collection and court costs, too.

As time goes on, Maney and Blitch think the company's losses may be further reduced. But even now the loss ratio isn't too far out of line with the experience of many casualty companies, they say.

• **Darkest Hours**—The worst single loss was when a \$3,851 check for a 1951 Cadillac bounced high after an auction in Mississippi. The buyer of the car had apparently vanished, but Blitch found the man had once been in the auto business in Texas. From there, he was able to track the culprit down, and the check was made good.

Another bleak day came shortly after the company began operating. An auctioneer accepted 18 checks totaling \$21,000 at one sale. It turned out that 11 checks totaling \$9,000 weren't worth the paper they were written on. Maney and Blitch thought they were out of business almost before they had started. But time, diplomacy, and threats finally succeeded in recovering the money in full.

Maney believes his company has been a factor in putting auctions on a sound basis, in bringing dealers into them who had previously shunned these markets.



*Reflecting a
"good place to work"*

**Employees appreciate a
clean, modern washroom—don't you?**

A survey of workers from 400 plants reveals washrooms as one of the first four essentials for good working conditions.

A clean, modern washroom with plenty of hot water, soap, and ScotTissue Towels shows consideration for employees.

These fine towels are extra soft and more absorbent. They stay tough when wet, too—one dries both hands. Always specify ScotTissue Towels—one symbol of a "good place to work." For suggestions on improving washrooms generally, contact the Washroom Advisory Service, Scott Paper Co., Chester, Pa.

Trade Marks "ScotTissue," "Washroom Advisory Service," Reg. U. S. Pat. Off.

SCOTTISSUE TOWELS
Symbol of the right kind of washroom

REGIONS



IRRIGATION for a half-million parched acres that have been unproductive for thousands of years comes from water backed up by Grand Coulee Dam. Six pumps

lift water from dam level to canal that flows into old riverbed that has been dry since the ice age. Two main arteries and branches take it from there to Columbia Basin's thirsty farmland.



A CHANCE: Drawings by lot give first crack at federal land to veterans with experience as . . .



FARMERS: Munson family looks over its farm site near Adco, Wash. But before there can be any farming, a lot of preliminary work will have to be done to ready the land. First the Munsons will have to arrange for . . .



GRADING: It will cost from \$5 to \$100 an acre. But eventually, farmers can count on a . . .



PAYOFF, as water starts down the long rills. Basin is expected to produce \$60-million in crops by 1959.

From Waste Land to Farm Land



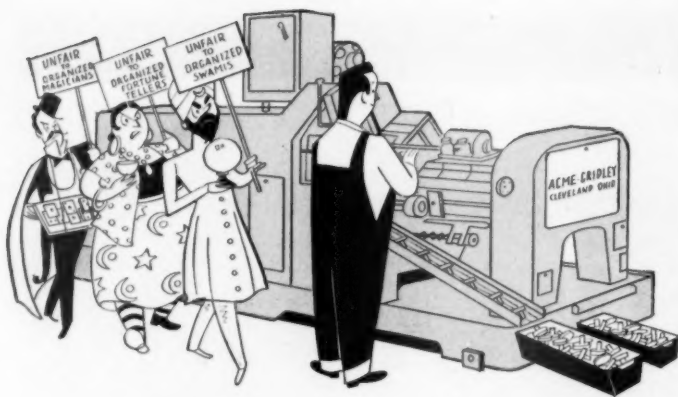
In 1879 Lt. Thomas W. Symons, U. S. Corps of Engineers, in charge of the Northwest, filed his first, dreary report on the Columbia Basin: "All in all it is a desolation; even the most hopeful can find nothing in its future to cheer."

Lt. Symons turned out to be almost right. Up to now the 4,000 sq. mi. of parched sagebrush that spreads northward from the Columbia River in central Washington had little to offer the most energetic homesteader. Not that some didn't try to carve out farms. But

years of sandstorms and too little rainfall for crops eventually drove even the most hopeful off the land, leaving only their gaunt, sun-beaten houses as memorials to the need for water.

• **Long Time Coming**—This week the lieutenant would have a quite different story to file. Drab crossroad towns that have lived for years on little but hope got a new lease on life, as the arid waste land began to get water for the first time—the first irrigation water to come from the Grand Coulee Dam.

That's just a starter. In the next



WANT PREDICTABLE OUTPUT —AND PLENTY OF IT?

You can count on sustained peak production with the Acme-Gridley Single Spindle Model M Automatic Bar Machine. You'll know in advance just how much output to expect—and when.

Here's why you'll get more good pieces in the pan—and no guesswork—when you put the job on a Model M:

- **FEWER REJECTS**—because the Model M is built to deliver close tolerances and fine finish at the fastest feeds and highest spindle speeds modern tools can take.
- **LESS DOWN TIME**—Simplicity of construction, with fewer parts to wear, safeguards sustained heavy-duty performance within the most exacting quality limits.
- **PRODUCTION 3 TO 10 TIMES FASTER** than conventional machining methods. Operation of the Model M is fully automatic—and so simple one man can tend several machines. Rugged, doubly reinforced frame and automatic spindle speed ranges permit speeds and feeds required for both carbide and high-speed tools.
- **FASTER TOOLING**—because the Model M design employs simple camming and a wide, open tooling zone. Setup time is kept at a minimum—to permit peak production, even on small lots.

For predictable peak production, investigate the Acme-Gridley Model M, described in catalog M-50-A.

No other source offers a line so complete—so much design and tooling experience in multiple and single spindle bar and chucking automatics—more than 45,000 machines built.



**THE
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**ACME-GRIDLEY
BAR AND CHUCKING AUTOMATICS**
built in 1, 4, 6 and 8 spindle styles,
maintain accuracy at the highest
spindle speeds and fastest feeds
modern cutting tools can withstand.

**"... the project will nearly
double irrigated land in
Washington ..."**

REGIONS starts on p. 94

seven years roughly half a million acres of hitherto unproductive land will be brought under irrigation. It is the first phase of what the Bureau of Reclamation calls "the largest single irrigation enterprise in the world and the greatest development of its type this nation has undertaken."

• **Something to Cheer**—Washingtonians from far and wide joined the basin towns in celebrating. Pageants were staged, a water festival queen was crowned, and in western fashion a group of volunteers converted a chunk of land from dry sagebrush to a finished farm in one day.

Highlight of the water festival was a drawing sponsored by the Bureau of Reclamation. Seven thousand war veterans drew for chances to buy 42 farm units to be turned into going farms.

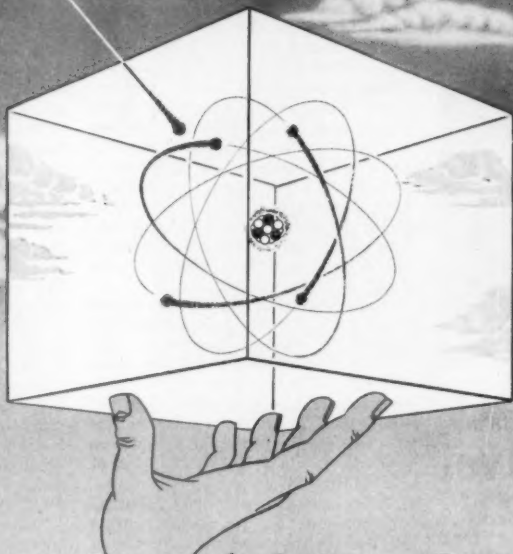
• **Long Haul**—Irrigation that will make possible these and the rest of the 7,000 farms in the first half of the Columbia Basin project will come from the huge store of water backed up behind Grand Coulee Dam. Six mammoth pumps will lift the water 280 ft. to an old riverbed of the Columbia. Gravity will carry the water 35 mi. along this riverbed toward the lands to be irrigated.

Two dams seal the upper end of the riverbed, forming a reservoir 27 mi. long. Water will flow through this reservoir, then divide into two main arteries of supply. When it is finally completed, the Columbia Basin project will have 4,500 mi. of canals and branches.

• **Long Range**—This year about 87,000 acres will be watered this way. But in seven years the project will nearly double the irrigated land in Washington.

Each year the water will reach more and more farms until the half-million acres are provided for. This will mean a huge boost in the area's 35,000 population. By 1959, the bureau figures, it will shoot to 95,000. Naturally, this will bring tremendous development of roads, schools, whole communities to serve the farm population.

Industrial development is bound to follow. U&I Sugar Co. is now planning to have a \$7-million sugar beet processing plant operating in the basin by September, 1953. Counties in the basin are already shopping around for industrial plants for year-round payroll stability to balance the seasonal work in the agricultural processing plants. Still, there are no rumblings of the gold-rush type of boom you might ex-



Clean Air and Atomic Energy

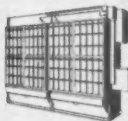


Clean air is a two way problem in Atomic Energy plants. Not only should incoming air be clean, but more important . . . the exhaust air must be filtered to prevent the escape of contaminated particles. AAF equipment is doing this double duty in all Atomic Energy plants . . . some of it specially designed for that purpose. Clean air is a must with Atomic Energy.

American Air Filter

COMPANY, INC.

387 Central Ave., Louisville 8, Ky. • American Air Filter of Canada, Ltd., Montreal, P.Q.
Plants in Louisville, Ky. and Moline, Ill.



ELECTRONIC
PRECIPITATORS



AIR FILTERS



ROTO-CLONE
DUST COLLECTORS

Write for our new book "Dust, Dollars and Dividends" . . . the dramatic story of dust, its problems and their profitable solution.

the pencil that lasts and lasts

New Super Velvet is more economical ... writes 39,000 words in actual tests ... smoother ... with flawless homogenized lead ... stronger because the lead is clamped to the wood by pressure-proofing ... better all the way! 2 for 15¢, 8¢ singly. Write for sample.



the 39,000 word
VENUS super velvet
with homogenized lead

AMERICAN PENCIL CO., HOBOKEN, N. J.

No. 6 in a Series
New.... AND Better

The Pioneer Now Offers the
Finest Equipment on the Highways



NATIONAL VAN LINES, INC.

The ultimate in moving equipment. Every movement can now be handled even more efficiently. This, with 50,000,000 miles of moving experience, is your assurance of complete satisfaction in every detail.

YES SIR... for the best in moving service, contact your nearest National office or agent—refer to the yellow pages in your telephone book.



EXEC. OFFICES:
2431 IRVING PARK ROAD, CHICAGO, ILL.

"... The touch will be light while the farmer is getting started ..."

REGIONS starts on p. 94

pect. Taking shape, instead, is orderly development of a tremendous project that will spread over many years.

• **First Things First**—At the moment, the new farmers aren't too concerned about the long-range future. The important thing now is to get the farms going. And there's more to setting up a farm here than putting a plow to earth and applying irrigation water.

Building paying farms out of waste land that has been parched for thousands of years is a grueling, costly job. The bureau estimates that development of the average, 70-acre farm will cost about \$25,000.

• **Even Start**—The first big item is land leveling. Every inch must be carefully leveled, with just a slight bit of slope so that irrigation water will run along the rills. This calls for heavy earth-moving equipment, which will set the farmer back anywhere from \$5 an acre for nearly level land to as much as \$100 an acre for land with a lot of earth to move.

If his land is too porous for rill irrigation or the soil too thin for deep cuts, a farmer can use sprinklers—aluminum pipe that is moved across the fields as sprinkling proceeds. Sprinkler irrigation, with cost of electricity for pumping and land labor involved, comes higher than leveling and rill irrigation. But some farmers on new lands use sprinklers the first year or two to avoid the initial outlay for leveling.

Whatever problems the farmers run into, they will have plenty of scientific data to guide them in setting up their farms. For 18 years the Bureau of Reclamation has been making detailed studies of every aspect of farming in the basin—soil, climate, crops, irrigation methods, and the like.

• **Ten-to-One Chance**—About 80% of the land to be irrigated in the basin is privately owned; about 20% is in federal hands. The federal land is what is being put up for sale now to war veterans, with drawings by lot. About 80 to 100 times as many veterans apply for a chance in the drawings as there is land for.

This sort of thing could lead to wild speculation. Congress foresaw this and early in the development authorized the bureau to curb it. The bureau does this by appraising each parcel of land—both public and private—at its dry-land value, before irrigation is applied. No one may buy land for more than this price and get government irrigation water.

So far there are no signs of speculation hysteria. But there are shades of black-market dealings here and there. This is how it's done: You buy the land at the government's appraisal, then you pay maybe \$5,000 extra for a beat-up tractor.

• **Ways and Means**—Where does the average GI get this kind of money? The answer is he doesn't. Many a GI farmer will squeak by with a lot less. If he buys his land from the government, he does have to have \$4,500 in liquid assets, including farm machinery, cattle, and other assets he may be moving from another farm. And he must have had two years of farming experience.

If he buys land from other sources, he may get a shoestring operation going on as little as \$2,000. This is how he cuts corners: He may not level the land the first year, and he will farm only about half of it with quick cash crops, like dry beans. He will probably live in the city or in a trailer so he doesn't have to build a house right away. And if he doesn't raise any livestock the first year, he won't need a barn.

Digging wells for domestic water is a big item, so for a while he will lug water from town or share his neighbor's. He will buy just one piece of equipment and swap on other equipment he needs. For subsistence, he will work out on other jobs part of the year.

• **Vision—and Sweat**—Eventually, this energetic farmer may build up his crop and equipment to the point where he can get bank credit to put his farm on a really paying basis. Twenty-two new farmers in the basin got loans from Farmers Home Administration this spring. But FHA requirements are tough, and its loans can be got only after a bank says no.

It's easy to see that getting the basin up on its feet will be a long, hard pull. But the bureau figures that once the first half-million acres start producing, crops—beans, sugar beets, potatoes, alfalfa, and specialty crops like grapes and mint—will be worth about \$60-million a year (at 1949 prices). Ultimately, it sees the area as a big center for dairying and beef cattle as well.

• **Footing the Bill**—There is still a lot of construction work to be done on the irrigation project itself. So far the government has only spent 64% of the total cost of Grand Coulee Dam and all the power and irrigation facilities (now reckoned at \$702-million). Power facilities are 96% completed, irrigation facilities 38%.

Commercial power sales throughout the Northwest will pay 75% of the total cost of power plus irrigation. The farmers will pay the remaining 25% as they use the water. Charges will go up on a sliding scale during the first 10 years. That means the touch will be light while the farmer gets started.

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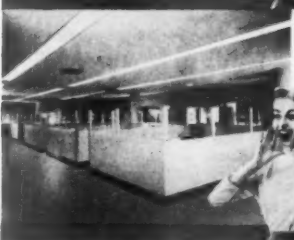
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Santa Claus Is Up for Sale

Private owners of the tiny Indiana village want to unload—but only to someone who likes kids and who will carry on the Christmas tradition.

Yes, Indiana, there is a Santa Claus. It's a little village (pop. 38) in the southern part of your very own state. And it's for sale in the 100th year of its existence. Price: \$300,000, plus inventory.

Every stamp collector knows about Santa Claus, Ind. Its cancellation on Christmas mail has thrilled many a child. Stores have often arranged to route their gift mailings through the post office with the magic name, as a special service to customers.

Besides the post office, Santa Claus, Ind., consists of half a dozen buildings, a restaurant, a miniature railroad, and Reindeer Park with six live reindeer. Buildings and their settings (picture) carry out the Santa Claus motif. The miniature railroad takes visiting children around town.

• **Privately Owned**—Centennial celebrations this summer are expected to draw a million visitors. For the past 10 years the town has been owned by a corporation that insists on remaining anonymous.

The principal owner of the company, which can be described only as an Indiana corporation, was interested in the town as a hobby. Now the company is so busy with military contracts that business is taking the owner's full time.

Santa Claus is listed for sale with a real estate brokerage clearinghouse, Charles Ford & Associates of Chicago. Several people have looked it over in

the past few weeks, but nobody has made a down payment.

Not just anyone can buy Santa Claus. The owners are firm in refusing to sell to anyone who wants to exploit the hamlet for out-and-out commercialism. They'll try to find a buyer who is genuinely fond of children and who wants to maintain the quaint charm of the project.

• **Christmas Rush**—When the village, about 50 mi. northeast of Evansville, reached post office stature, it was known as Santa Fee. But the Post Office Dept. disapproved that name for a post office, for fear of confusion with Santa Fe, N. M., which also once had two "e's" in its name. During Christmas Eve festivities, the townspeople were inspired to change the name.

Promotion of the town's postmark at Christmas was originated by Postmaster James Martin when he took office in 1914. Beginning in October, the rush of mail picks up till about 200 persons, including nearly all 38 inhabitants, are employed at the post office.

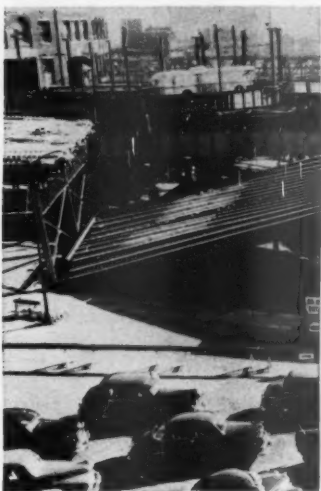
Volume usually averages about 3-million pieces of mail; last year nearly 5-million were handled. It's still only a second-class office, though, because most of the stamps are bought elsewhere.

One of Santa Claus' buildings has space for toy manufacturers' displays. Department stores, Marshall Field for one, arrange to transship toys bought at

the Chicago store, so that the magic postmark will appear on packages. Some stores maintain toy stocks at Santa Claus, Ind., which saves mailing to that point.



Bridges Falling . . .



. . . Here and There

The pedestrian bridge in upper picture fell while being built in Milwaukee. And the builders know why—a truck that needed 12-ft. clearance tried to go under the 11-ft., 11-in. overhead. It looked like a job of dismantling the \$75,000 bridge to extricate the truck.

At the Sullivan Square overpass in Boston (lower picture), 17 steel beams, each 96 ft. long, slipped from their support at one end—and nobody seemed to know why. Cars in the foreground got magnificently snarled while trying to detour around the blockade.

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INDUSTRY



SPACE SAVING is one of the big selling points of the new wood furniture designs. A desk-cabinet unit has a file that pulls down like a sugar bin, instead of out like a drawer.

Wood Furniture Makers Re-Do

For the first few years after World War II, almost anybody who could slap a desk together could find a buyer for it. But once the backlogs were filled, the manufacturers of wood office furniture suddenly found themselves right back where they had been before the war—in hot competition with the manufacturers of metal office equipment.

Now that the supply of metals is easing up, the 32 manufacturer-members of the Wood Office Furniture Institute expect this competition to get even hotter. A lot of their time is going into planning and designing new lines that will give them an edge.

At the annual meeting of the National Office Management Assn., held recently in San Francisco, the institute



EXECUTIVE OFFICE has a conference-type desk whose main feature is the wide overhang. Top brass can sit tight up to the desk without banging its knees.



LADY BOSS gets the same streamlined desk job, but it's cut to size—narrower and more feminine looking. The hard, smooth finish won't snag sheer stockings.

Their Office Equipment

unveiled some of its new entries in the competition. Under the slogan "Tomorrow's Office Today," WOFI showed a complete office layout—an executive's office, accounting office, lady executive's office, stenographic pool, advertising, sales, personnel, billing, and purchasing departments, and a reception room.

• **Self Defense**—WOFI was anxious to show the crowds what the research

laboratories have done to improve both the appearance and the practicability of wood furniture. The institute's eagerness was sparked by the big bite the metal furniture makers have taken out of the market in the last two decades. By 1942, when WOFI was organized, the metal people were commanding about 40% of the business. The split is about the same now, but,

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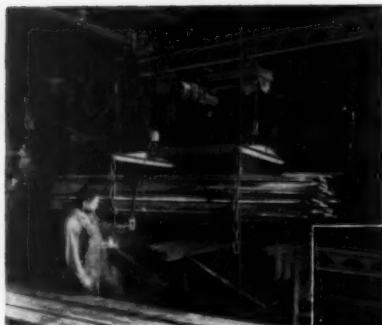
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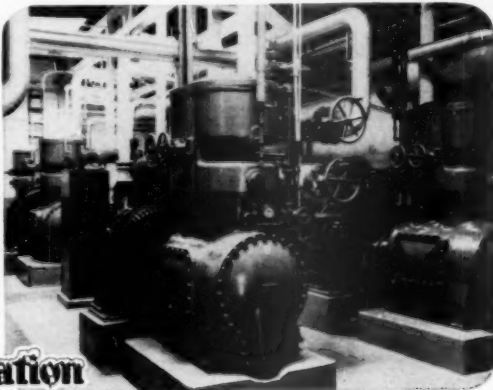
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The really important jobs - whether air conditioning, ice making, food freezing or other cooling work - call for Frick Refrigeration.



"... the wood end of the industry knows it must fight to hold what it has ..."

WOOD FURNITURE starts on p. 102

as supplies of metal increase, the wood end of the industry knows that it will have to fight to hold what it has.

• **WOFI's Mission**—WOFI was established in Washington during the war to help its members through the intricacies of priorities, etc. But its long-range postwar purpose has been to help the wood office furniture industry compete in a buyers' market.

Its first big problem was to do something about the nature of its product. It's natural for wood to burn, scar, and splinter with hard use. Wood drawers swell and stick in humid weather. The institute handed its problems to the research laboratory it shares with National Lumbermen's Assn. One by one, the solutions came back:

Burnproof table and desk tops. A thin layer of aluminum foil is placed under the veneer. Since aluminum is a rapid conductor of heat, a forgotten cigarette will burn itself out on the desk top. All you have to do is blow away the ashes.

Stickproof desk drawers. During humid weather, wood absorbs moisture, then swells. That makes drawers stick. Drawers are now dipped in wood stabilizing compounds to seal the pores so they can't absorb water.

Hosiery "insurance." Few things rile a female worker more than runs and snags in her hose because of a splintered desk. The metal people have played that for all it's worth. Now, however, legs of wood desks and chairs are made of a densified wood that can't mar, splinter, dent, or rupture. The wood is densified in a patented process that remakes it into a harder structure.

Easy-on-the-eye finishes. The lab developed a wood finish called Softone, light in color, which reduces eyestrain that comes from readjusting the eye muscles from a dark colored table or desk top to a white sheet of paper.

Streamlined desk designs. Smaller-size wood desks (58 in. by 32 in.) as compared with the average size (60 in. by 34 in.) save up to 10% in office space. Between-desk space was cut by (1) eliminating the center drawer so that worker doesn't have to push his chair back to open it, and (2) by building desks on island bases instead of on conventional legs. That permits easy swiveling with the chair placed closer to the desk. Island bases also mean narrower aisles between rows, because there's no danger of tripping over desk legs.



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You can get expert help in applying this container, or any of the

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COMMUNICATIONS

Each of these
five men wants
something ...



FCC's hearings,
just winding up,
will decide who
gets his wish



LEONARD GOLDENSON hopes his United Paramount Theaters will be dominating partner of ABC.



ED NOBLE thinks UPT capital would make his ABC a full-fledged competitor of Columbia and NBC.



BARNEY BALABAN hopes his Paramount Pictures, shorn of UPT, will be allowed to keep its Los Angeles TV station.



ALLEN DUMONT, seeking to expand, hopes his TV company will be held to be independent of Paramount.



WILLIAM PALEY will get a Chicago TV station for CBS in a side deal, if FCC approves the UPT-ABC merger.

What ABC Merger Case Means to TV

The high brass of the television industry is sitting with its tongues hanging out as the Federal Communications Commission grinds its way toward the close of hearings that began nearly a year ago.

Officially, the question at issue is labeled "The United Paramount Theaters-American Broadcasting Co. merger" (BW-June 25, p. 20). But it's really much more wide-spreading than that. The ultimate decision will affect television properties all over the United States.

Here are some of the issues:

- Will United Paramount be allowed to merge with—and thus dominate—ABC and its five television stations?

- Will Paramount Pictures, the movie-making company from which

United Paramount and its 600 theaters were split as the result of an anti-trust decision, be allowed to keep its TV station KTLA in Los Angeles?

- Will DuMont be declared free of domination by Paramount Pictures, and therefore eligible to own two more TV stations?

- Will Columbia Broadcasting System get TV station WBKB, in Chicago?

- Will ABC be placed on the market once again?

Because of the complexities of these and other more general problems posed in the hearings, United Paramount and ABC are planning to ask the FCC to separate their particular case, and give it a priority ruling. They argue that their merger proposal has been hanging fire for close to a year, with

resultant handicaps to the planning of fall and winter programs.

- **More Delays**—As things look now, though, the hearings may run into July. And it should be at least November before Leo Resnick, FCC's top trial examiner, could hand down an initial decision. Finally, the commission itself may hear more oral arguments, postponing a ruling until next spring.

These issues, which are taking so long to resolve, began to shape up long before Leonard Goldenson of UPT and Ed Noble of ABC had thrashed out their merger deal. But, when Goldenson and Noble asked for what they thought would be a routine O.K., the commission decided to lump a mass of older questions into the one case.

- **Balaban's Role**—A lot of those issues had stemmed from the early and eager

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interest of Barney Balaban, president of Paramount Pictures, in all aspects of TV. That concern had led him to ownership of KTLA even before the war. For a time he held an interest in a projection television research and development company with what it claims are basic patents. Today he has interests in pay-as-you-see home television, in DuMont, and in a color television system.

Theaters were Balaban's take-off point in the movie industry. From a secure base in his Balaban & Katz chain in Chicago, he had moved to the presidency of Paramount, and its big chain of theaters. When the government's antitrust victory forced the movie-theater companies to split up, Balaban stayed with the picture company. Goldenson, a long-time associate of Balaban, took over United Paramount with the 600 theaters.

Out of this welter of moves and countermoves arose three general questions, which the FCC is now trying to settle.

I. The Antitrust Taint

Should their earlier antitrust violations make movie producers ineligible to get into broadcasting or other phases of the TV industry? The UPT-ABC merger is under this tent because of the days when UPT executives were a part of Paramount Pictures.

The question first arose when Paramount Pictures after the war asked FCC to O.K. its ownership of KTLA. The commission finally gave its approval. But it specified that it would make no blanket ruling on the eligibility of antitrust violators; each case must be decided on its merits. FCC added that its O.K. didn't even mean that it was ruling on Paramount's own eligibility. That was to be decided along with the UPT-ABC merger.

Incidentally, a general ban would not only have barred most of the big movie companies, but would also have hit such other blue chip outfits as General Electric and Westinghouse, which have had antitrust cases.

II. How Rich Must You Be?

In effect, FCC will have to decide how big a TV network has to be in order to compete with CBS and National Broadcasting Co. ABC has long been wailing that it just doesn't have enough capital to bid against its huge rivals for talent and programs.

Both United Paramount and ABC have anchored their merger plea to the claim that in no other way can ABC's television network become a real competitor. Their witnesses have cited a mass of figures to show that NBC-TV is too strong because it is backed by Radio Corp. of America, while CBS is

bolstered by its operations in records, and more recently in manufacturing.

ABC says that TV would be much healthier with three roughly even competitors. But it can only assume its role in the trio if it gets such financial and entertainment backing as UPT can provide.

III. Theater Owners vs. TV

Possibly the toughest of all the general problems before FCC is this: Is the basic conflict of interest between theater owners and TV broadcasters so deep that theater owners should be barred from TV? Should movie producers be barred from television for the same reason?

Possibly, the commission can find some light in the background of the UPT-ABC merger proposal. Before the deal was announced, there had been two years of rumors that ABC was for sale. CBS had reportedly made an offer for ABC; what it really wanted was the pick of ABC's television stations.

• **Quota of Five**—Right after the war ABC had applied for, and received, its full legal quota of five TV stations. But CBS had come up to the freeze with only two TV stations, and it was involved in the fight over color, with the acquisition of manufacturing facilities, and with other difficulties.

Under the UPT-ABC merger plan, the new company would be one TV station over the limit—ABC's five plus UPT's Chicago station WBKB. So a side deal was tacked onto the proposal, selling the Chicago station to CBS for \$6-million. Balaban had paid only \$2.5-million for it, but its \$1.2-million earnings in the first nine months of 1951 have led some experts to set its value at double what CBS will pay. All this is contingent on FCC approval, of course.

• **Split Board**—DuMont gets into this general complicated picture because Paramount put \$164,000 into the then struggling television company before the war.

At the time, this gave Paramount as many DuMont board members as DuMont itself had. An FCC examiner proposed that Paramount be ordered to get out of DuMont.

Since then, Paramount's proportion of DuMont stock has dropped; it has only minority representation on the board. And now Dr. Allen B. DuMont wants the FCC to declare him completely clear of Paramount control. The reason: DuMont himself wants to expand to the legal maximum of five TV stations. But as things stand now he's limited to three, because the FCC counts in Paramount's two stations with his. FCC has never recognized the transfer of WBKB from Paramount to UPT, though the transfer was made by court direction.



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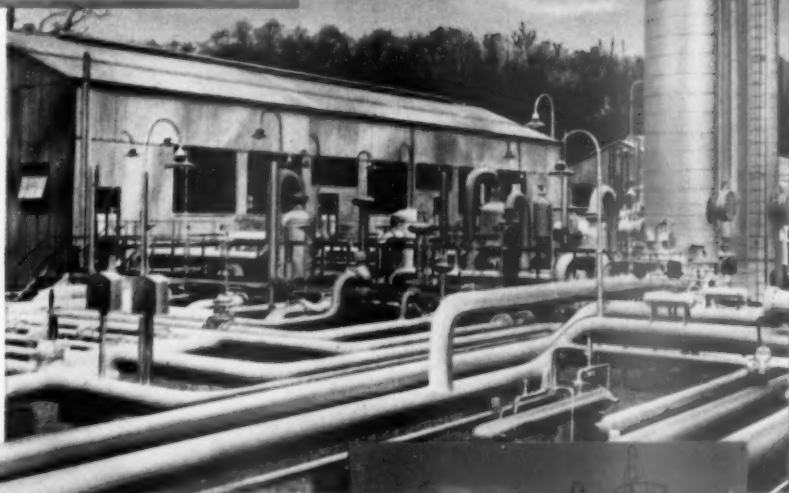
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COMMODITIES

More Nickel for Free World

Defense Procurement Agency's Jess Larson is confident that the U.S. nickel expansion program will boost the free world's pre-Korea supply one-third by 1955.

When the Korean War started, International Nickel Co. of Canada, Ltd., was producing 90% of the free world's supply of nickel—a total of 118,000 tons a year. By the end of 1955, INCO's annual output will stretch to 124,000 tons. But then the company will be producing less than 70% of the nickel supply outside the Iron Curtain.

The projected drop in INCO's share of the market is not the paradox it seems to be. It will come as a by-product of a four-year nickel expansion program the U.S. has mapped. Object: to boost annual nickel output in the free world by 47,600 tons—one-third above the pre-Korea supply.

• **Two Views**—Washington officials are divided on the program's long-range possibilities. Jess Larson, administrator of Defense Procurement Agency and of General Services Administration, which will run the show, is sure the program will balance out supply and demand by the end of 1955.

National Production Authority's metals allocators aren't that optimistic; won't stick their necks out any further than 1953. They made their stand clear in last week's gloomy report to stainless steel producers: Relaxation of nickel controls in the near future "is not even remotely possible."

• **Nudging**—However far the program stretches by 1955, though, the U.S. is sure to get a bigger share of the free world's supply than its present two-thirds' take. To get the ball rolling, DMPA has already brought National Lead Co. and Sherritt-Gordon Mines, Ltd., a Canadian copper company, into the nickel business. It is nudging INCO and Falconbridge Nickel Mines, Ltd., to expand production by offering contracts guaranteeing a long-term market with cash advances. National Lead, an American company, gets an added stimulant: rapid tax writeoff privileges.

There are still others on the list: U.S. coal and iron ore producer M. A. Hanna and two new Canadian outfits—East Rim Nickel Mines, Ltd., and Milnet Mines, Ltd.

• **Potential**—Here is how these companies fit into the expansion program:

• **National Lead's** 1953 production of 925 tons will just about equal all the nickel now produced in the U.S. The government will get the en-

tire production for five years from a \$5-million nickel treatment plant the company is building at Fredericktown, Mo.

• **Sherritt-Gordon** is moving facilities from a worked-out mine at Sherridon, Manitoba, to new nickel-copper deposits to the north. It is also building a nickel refinery at Edmonton, Alberta, where a brand-new process (BW-May17'52,p52) will turn out 9,000 tons of nickel a year by 1955. Sherritt-Gordon has a long-term DMPA contract for 27,000 tons of nickel.

• **INCO's** 6,000-ton yearly expansion in Ontario's Sudbury district has a long-term commitment to the U.S. nickel stockpile.

• **M. A. Hanna** is researching processes and designing a plant to produce 9,000 tons of nickel a year by 1954.

• **East Rim and Milnet** both process their ores at the nearby Falconbridge Mill. East Rim will reach peak production of 2,000 tons in 1954. Milnet's property should yield 1,200 tons a year by the beginning of 1953.

• **Key Plant**—The biggest element in the whole nickel expansion, however, is reactivation of the government-owned Nicaro plant in Cuba (BW-Mar.1'52,p140). NPA has allocated Nicaro's entire output, which will hit a peak of 1,250 tons a month by July, to industry.

Nickel Processing Co., owned by N. V. Billiton Maatschappij, a Dutch metals company, National Lead, and a Cuban combine, Fomento de Minerales, has been operating Nicaro for GSA on a cost-plus-fee basis. In April Billiton bowed out, sold its 50% interest to the other two.

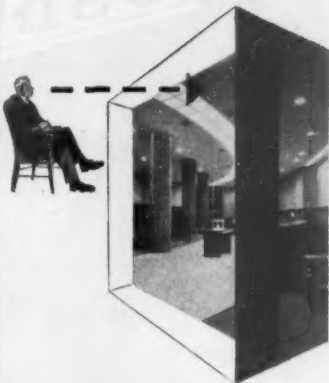
Both GSA and National Lead are confident that Nicaro can be operated on a competitive basis in a normal market.

• **Backstoppers**—If the nickel expansion blueprint doesn't work out as expected by 1955, DMPA has still other resorts, with a potential supply of at least 60,000 more tons a year.

• **INCO-controlled** deposits in Venezuela could supply a large tonnage of submarginal nickel, probably 15,000 tons a year.

• **Deposits in Brazil** controlled by Ventures, Ltd., of Canada contain 10-

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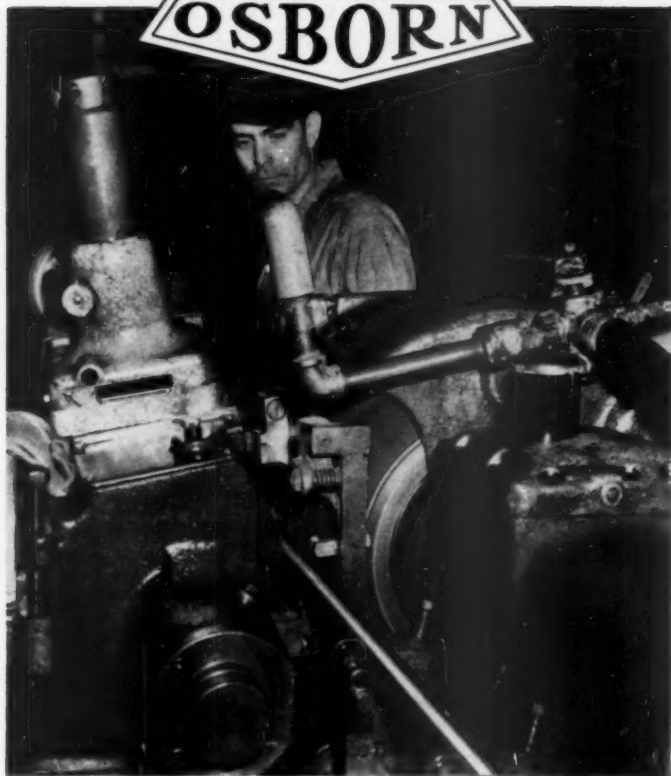


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In the operation shown above, nickel-moly steel rods for pumps, are being finished by an Osborn Fascut Brush. Prior to brushing, the same machine with a grinding wheel in place of the brush made a rough grind, taking off .006 inch, and a finish grind, taking off .002 inch. Results of the Centerless Brushing: Produces a smoother finish. Reduces wear in pump packing. Reduces corrosive action on rods; makes them last longer.

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million to 20-million tons of ore with about 24% nickel content.

• Newly discovered deposits on the North rim of Ontario's Sudbury basin are being developed by Falconbridge. DMPA officials figure that in three years these deposits could produce up to 25,000 tons of nickel, as well as 15,000 tons of copper and 900 tons of cobalt, annually.

These sources, however, are all high-risk projects that would call for substantial capital investment. And the U.S. would have to pitch in with lots of financial aid to get the companies to exploit them.

Cuban Sugar Crop

Record yield has U.S. producers worried. The problem: how to absorb surplus and keep U. S. price up.

Cuba is getting in the biggest sugar crop in its history. Nobody, including Cuba, is very happy about it. The record crop is causing price jitters in the market and political jitters in Washington.

Already this year the price of raw sugar has swung from \$5.60 per hundred lb. to a high of \$6.35, then back to around \$6.15, New York basis. That's a wider swing than the normally nervous sugar market can take without causing rumblings in the U. S. Dept. of Agriculture, especially in an election year.

• **Nervous**—This is why. Louisiana cane producers and western beet growers are afraid the Cubans can somehow force a revision of the present quotas to let more Cuban sugar into the U. S. This would have a depressing effect on the price of sugar in this country. So they're lining up their forces to maintain present quotas as the best way to keep the price up.

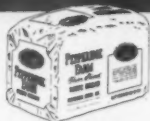
The Cubans, on the other hand, are anxious to sell more in this country if they can. The Cuban crop is figured at around 7.5-million tons. It tops the previous high of 6.6-million tons in 1948. What they don't sell in the U. S. under the quota system they will have to dump on the world market. And the world market price now is about \$4.70, a far cry from the U. S. price.

• **Two Possibilities**—The decision is up to Secretary of Agriculture Brannan. Under the sugar quota act, he must follow a pattern laid down by Congress in allotting the U. S. market to world producers. Still, there are two things he could do to ease the Cuban surplus:

• Sec. Brannan has a good deal of latitude in determining what the U. S. market will be. So he could increase the

for Uniform Baking

of Premium Quality Breads...

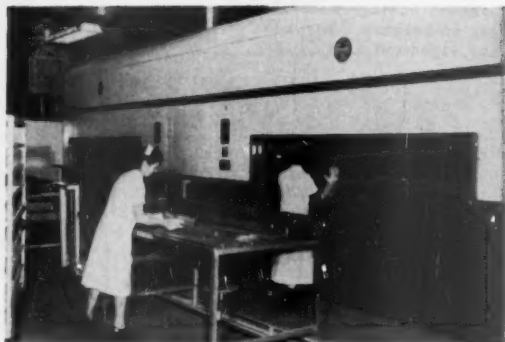


Pick up several loaves of Pepperidge Farms Bread and look at the uniform finish of both—the white and whole-wheat varieties. It's the sort of finish you expect in bread baked in Modern Gas Ovens with their precisely controlled temperatures and uniform heat distribution.

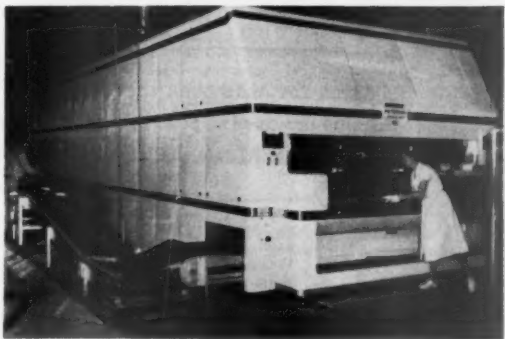
The selection of GAS and modern Gas Baking Ovens for the Downingtown, Pennsylvania, Bakery was not a chance decision by Pepperidge Farms, Inc. Earlier experience at the original Pepperidge Farm Bakery in Connecticut had convinced Mrs. Margaret Rudkin, Director, that GAS was the most dependable as well as the cleanest fuel for baking of premium quality breads.

Results obtained at this branch bakery confirm Mrs. Rudkin's choice of GAS for its convenience, economy, and dependability under all conditions.

Versatile GAS and Modern Gas Baking Equipment offer many advantages for every type of baking, from local service variety goods to the largest production engineering operations. Ask your Gas Company Representative for details.



Two direct-fired GAS ovens of the reel type manufactured by American Machine and Foundry Co.



Peterson continuous tray oven utilizing direct-fired GAS burners.



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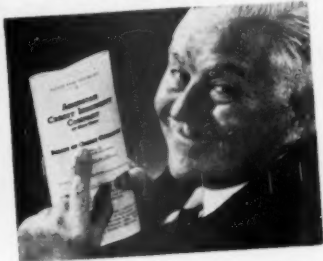
"~~Company~~ Company, one of our
 biggest customers, couldn't
 pay us because a tornado
 had wiped out their plant.



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total U.S. consumption estimate, or
 quota, now set at 7.7-million tons,
 which would automatically let in more
 Cuban sugar. But Sec. Brannan has al-
 ready expressed approval of a price level
 somewhere around \$6.35. So, since
 letting in more Cuban sugar would de-
 press the U.S. price, he's not very
 likely to resort to this possibility.

• Juggling of quotas is another,
 more likely expedient, which is allowed
 under the law if some producer groups
 are unable to fill their allotments. Two
 possible deficits are being watched. One
 is the sugar beet area of western U.S.,
 where the crop has just been planted.
 U.S. beet producers had a quota of
 1.8-million tons in 1951, but produced
 less than 1.6-million. The Philippines
 also fell short of their 1951 quota, by
 almost 300,000 tons. They may fall
 short again this year, even though pro-
 duction there has been on the upswing
 since the war. Even this device will be
 used cautiously, however, since transfer
 of tonnages from one quota to another
 could also result in a price drop, by
 increasing the supply.

Whetting America's Taste for Licorice

American smokers' growing fondness
 for the cigarette has lighted a fire un-
 der one of the world's oldest and most
 conservative industries—the licorice busi-
 ness.

With cigarettes edging out other to-
 bacco products that use larger amounts
 of licorice, MacAndrews & Forbes Co.,
 of Camden, N. J., is scratching around
 for new uses for its product. As a first
 step, it has set up a fellowship at the
 Massachusetts College of Pharmacy in
 Boston to study the medicinal prop-
 erties of licorice.

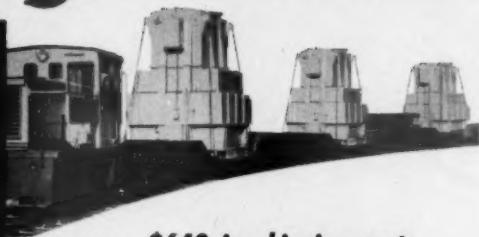
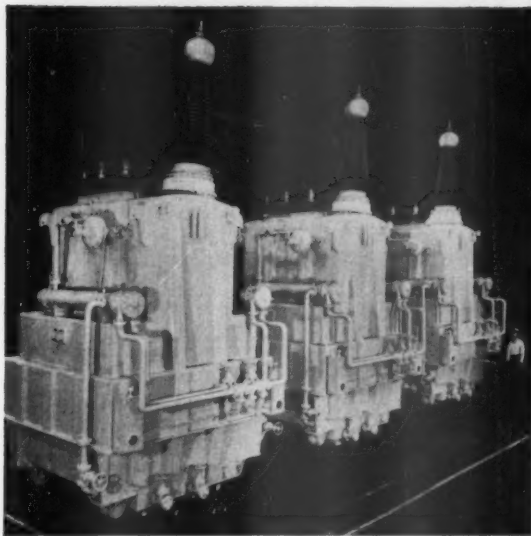
The market for licorice has been
 pretty well limited to three things: to-
 bacco, medicine, and candy.

The largest user is the tobacco indus-
 try. Every cigarette is treated with
 a casing of liquor that contains licorice.
 But the industry uses relatively more
 licorice in snuff, chewing tobacco, and
 pipe and cigar tobacco. So, even though
 cigarette consumption has hit a new
 high, Forbes is shipping less licorice
 than it did in 1950, says company
 president W. W. Walker.

A big part of the burden of develop-
 ing new uses for licorice naturally falls
 on Forbes, which has only one com-
 petitor in the field—J. S. Young Co., of
 Baltimore. That's because extracting
 and processing licorice is a delicate and
 difficult process. It takes years of ex-
 perience to become proficient in brew-
 ing and finishing licorice. Over 32%
 of Forbes' employees have been on the
 payroll 25 years or longer.

By constructing these transformer shells
with U-S-S COR-TEN High Strength Steel

9 tons of weight saved



- saves \$642 in shipping costs
- makes steel supply go 33% further

By using $\frac{3}{8}$ " U-S-S COR-TEN steel plates in place of $\frac{1}{2}$ " mild steel in the shells of three 29,000 Kva, 230,000 volt transformers, the Pennsylvania Transformer Company, Canonsburg, Pa., reduced weight per unit from 24,000 lbs. to 18,000 lbs. This 3-ton weight saving not only conserves steel, and makes the transformers easier to install, but cuts the costs of shipping to their destination in Oregon, \$214 per unit.

Here's what Pennsylvania Transformer has to say about this application. "With the trend to larger generating stations, the ability of the utilities to handle the physical size and weight of transformers has been of growing concern. Weight of the finished transformer is therefore important.

"The corrosion question is always pertinent. If the generating plant is hydro, you may have water spray to contend with. If it is steam generated by coal, you have an atmospheric problem. Corrosion-resistant steel, therefore, is desirable.

"By substituting U-S-S COR-TEN steel on these new transformers we obtained both weight reduction and corrosion resistance. In our opinion, COR-TEN steel has far more resistance to atmospheric corrosion than copper bearing steel, and with it our engineers were able to reduce weight to such a degree that the extra cost for COR-TEN steel was more than offset by (1) less tons used, and (2) freight reduction on the finished product.

"Our shop people tell us it is a bit more difficult to bend in the brake press, but once formed U-S-S COR-TEN steel stays in position better than mild steel, making it easier for our fitters to put the transformer tanks together."

You can reduce weight without reducing durability
with U-S-S COR-TEN High Strength Steel
— its superior corrosion resistance is the reason why

● Any steel used to reduce weight needs more than high strength alone. To meet the test of time, it must have high resistance to corrosion as well. Superior ability to fight corrosion is the important property that sets U-S-S COR-TEN steel apart from most high strength steels.

For not only does this pioneer low-alloy, high-strength steel have a yield point nearly twice that of structural carbon steel, but in addition, COR-TEN steel's resistance to atmospheric corrosion is from 4 to 6 times greater.

As a result, U-S-S COR-TEN steel can be safely used in thinner sections to substantially reduce weight, and because its strength is strongly protected against corrosive attack, this lighter construction will last just as long and will require no more maintenance than the heavier

construction it replaces.

For the past 17 years, designers have used U-S-S COR-TEN high strength steel to lift the costly drag of deadweight from every kind of mobile equipment—from freight cars and streamlined trains, from buses, trucks and trailers. Even shop pallets, tote boxes, refrigerators and filing cabinets have been built lighter and longer lasting with U-S-S COR-TEN steel. Every pound of weight saved in this equipment has meant fewer pounds of metal to buy—fewer pounds to move—and fewer pounds to ship. That makes for SAVINGS, all along the line.

If you want to reduce weight safely, with least change in shop methods, and at low cost, send us your designs and we'll show you where and how to use U-S-S COR-TEN steel to best advantage.

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NATIONAL TUBE DIVISION, PITTSBURGH • TENNESSEE COAL & IRON DIVISION, FAIRFIELD, ALA. • UNITED STATES STEEL SUPPLY DIVISION, WAREHOUSE DISTRIBUTORS
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U-S-S COR-TEN High Strength STEEL



UNITED STATES STEEL

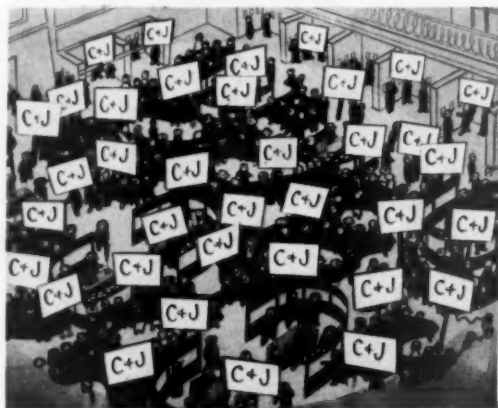
FINANCE



ODD-LOT CUSTOMER and his broker: a not-too-serious view from a film put out by Carlisle & Jacquelin.



TRANSMITTING THE ORDER: It goes by wire from the branch office to the commission broker's Wall Street office.



COVERING THE "CROWDS": The odd-lot house has brokers covering every point on the Exchange floor.



SILENT BROKER: The man in the middle represents an odd-lot house. He notes the current round-lot price.

Odd-Lot Trading: An Art in Itself

Every day that the New York Stock Exchange is open, a great many people buy or sell a few shares of this, that, or the other stock. Few stop to think that their dribs and drabs of five or 10 or 17 shares don't go directly to the trading floor—that the Big Board deals only in round-lot units of 100 shares (in most stocks) or multiples of 100.

In fact, quite a few people in the securities business are a bit vague on how the odd-lot dealer actually handles the less-than-round-lot order.

In order to clear up some of this vagueness, the odd-lot house of Carlisle & Jacquelin has just come up with a

little movie. The film, titled "We're an Odd Lot," is one of the gayest industrial movies ever produced (pictures, above). It traces the complicated progress of an odd-lot order and was made primarily to show to brokers all over the country.

• **To the "Post"**—When a broker wants to buy or sell a round lot of a certain stock, he goes to the "post" on the floor of the Exchange where that issue is traded, joins the "crowd" of brokers who have orders to execute in that stock at the moment, and haggles to get the best price he can for his client.

But you can't buy or sell an odd lot

that way. And this is why: It would be stretching coincidence if one broker wanted to buy 36 shares, say, of du Pont at the same time that another broker had an order to sell 36 shares. The broker with an order to buy 36 shares would probably have to hang around the du Pont crowd for some time, until he could pick up several smaller lots of stock that added up to 36 shares, probably at varying prices. This kind of five-and-10 shopping would be a very hard way to make a living.

• **Not a Broker**—That's why, soon after the Exchange adopted its present



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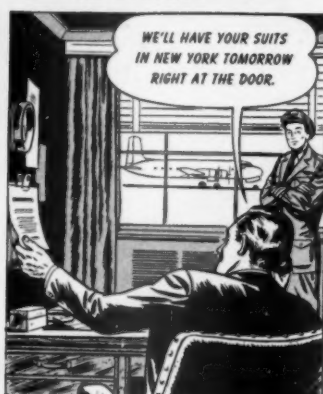
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J. A. Zohnbauer, President of Jantzen Knitting Mills, Inc., Portland, says...



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method of trading back in 1871, the odd-lot man set up in business. He handles odd-lot orders for regular brokers. He isn't a broker at all, but a dealer who happens to operate on the floor of the Exchange.

The distinction is basic. A broker is an agent, who works on commission. He never owns the stock he buys or sells for you. A dealer acts for his own account. Sometime or other, just like a grocer, he owns an "inventory" of the securities he deals in, and takes the risks of market fluctuation.

The odd-lot dealers who are members of the Big Board do business only with other members, not with the general public (nor over-the-counter dealers). Unlike other dealers, they do business on a fixed differential: $\frac{1}{8}$ of a point ($12\frac{1}{8}$) per share on stocks selling below \$40 a share; $\frac{1}{4}$ of a point on stock selling at \$40 and up. That means you pay $\frac{1}{8}$ or $\frac{1}{4}$ extra per share when you buy an odd lot; get $\frac{1}{8}$ or $\frac{1}{4}$ less when you sell.

You can see why the odd-lot "broker" has to be a dealer and charge an extra fee for his services. If he is going to execute "buy" and "sell" orders in odd lots, he is going to have an inventory of stocks. To fill a buy order for those 36 shares of du Pont, he has to buy a round lot of 100 shares, unless he happens to have the stock on hand.

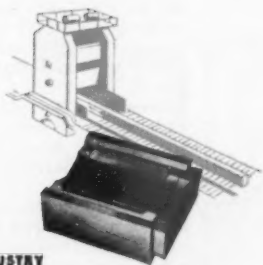
• **Down the Line**—Let's see how the investing public does business with these odd-lot dealers. The investor places his order with one of the member firms of the New York Stock Exchange, say, to buy 15 shares of Cucamonga R.R. If he lives outside New York City, he places the order through a branch or a correspondent firm. At any rate, as soon as the order reaches the broker's New York office, it is passed on to one of the firm's telephone booths on the floor of the Exchange. There, it is usually assigned to either Carlisle & Jacquelin or DeCoppet & Doremus. These two are the major houses, and handle nearly all the odd-lot business.

Floor brokers working for these houses are spotted around the floor (picture, page 116). Usually, each firm has at least two brokers at every one of the 18 posts where individual issues are traded. When the "buy" order reaches (via pneumatic tube) the post where Cucamonga is traded, it is picked up by a broker of the odd-lot firm to which it is addressed.

This man goes to the "crowd" of brokers who are buying and selling Cucamonga at the moment. If the order is to be executed "at the market" (best possible current market price), he waits until the next round-lot "trade" takes place in Cucamonga. The price at which that deal takes place becomes the basis of the price the customer pays or gets. If the odd-lot dealer has a buy order, he adds the firm's differential

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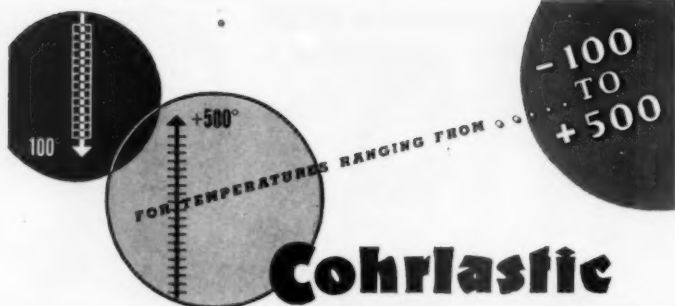
MICARTA is lighter than aluminum . . . and pound for pound, has a compressive strength greater than structural steel. It cannot rust.

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Incorporated**

May 28, 1952

of $\frac{1}{8}$ or $\frac{1}{4}$ to the round-lot price. If it's a sell order, he subtracts the differential. He then reports this odd-lot price back to the brokerage firm that gave him the order, which in turn reports it back to the customer. The brokerage firm takes a commission on the deal.

• **The Ticker**—Of course, it would be possible for an odd-lot house to do business without such elaborate coverage of the floor. Its employees could just watch the ticker. The next time a trade in Cucamonga R.R. appeared, it could add or subtract its differential and report the price back to the commission broker.

However, the execution of this order to buy Cucamonga must be based on the next round-lot transaction in Cucamonga after the order is received. The next trade the ticker reports in Cucamonga could easily have occurred before this order reached the odd-lot firm. For the tape is always more or less behind actual floor transactions. The reasons are partly mechanical, partly dependent on floor activity.

You have to allow a little time for the price to be transmitted from the floor to the ticker system, and a little more time before the price is actually printed. Finally, if trading volume is heavy, the keyboards can't handle incoming slips so fast as they are received. Only then is the tape said to be "late."

• **Time Lag**—Because of this time lag, odd-lot dealers on the Big Board are right there when the round-lot trading takes place. They can prove that orders to buy or sell at the market have been executed on exactly that basis. When an order is "limited," that is, to buy or sell at a definite price, the odd-lot dealer puts it into his "book" and executes it when and if the market reaches the price that will give the firm its differential.

• **Inventories**—There's more to the odd-lot business than executing orders. The odd-lot house has to keep constantly readjusting its inventory by buying and selling round lots.

For instance, when the market is going down, an odd-lot house that kept stock in inventory to fill buying orders would lose money. So when buying orders come in, it sells stock it doesn't have, making delivery with borrowed shares. In other words, it "takes a short position." As the market goes down, it buys in stock at lower prices or acquires it from filling sell orders. Then it returns the borrowed stock.

• **Inventory**—In a rising market, an odd-lot house stands to make money on its inventory. But just the same, the two firms never like to gamble on inventory. It ties up capital, and they could get badly stuck in a sudden turn of the market. The amount of inventory carried varies with volume of trading and the trend of the market. But an aver-

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- SOFT TOUCH



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The modern industrial plant is a marvel of technological development. Automatic machines manufacture all kinds of products with unbelievable speed and precision.

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That's why old-style, make shift fire protection methods should have no place in industry today!

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age inventory for the two firms would be around \$2-million each.

That still doesn't end the list of headaches. Odd-lot firms have a tremendous amount of bookkeeping to do. To prove that sales have been executed at the market, clerks keep a running record of every round-lot sale. Back in the firm's office, there's a clerk for every one of the 18 posts on the floor.

Each clerk watches a "deleter ticker," which shows only trades in the securities assigned to his post, at the same time they appear on conventional tickers all over the U.S. Once a minute, a time clock stamps the tape. The clerk records the fluctuations of each stock on a "range sheet," along with the time. This sheet helps settle any arguments.

- **Free Data**—It also provides valuable information for the firm's brokers at that post. Commission brokers may call and get information, for free. It's estimated that each day both firms together may answer around 70,000 queries on last-sale prices during trading hours. Within 20 min. after the close, they handle another 14,000 plus about 4,000 requests to check price ranges on round-lot orders not executed that day.

This free service to commission houses indicates the sharp competition between the two odd-lot firms. They are definitely not a tight little duopoly, working hand in glove. Each tries to think up special services that will induce commission houses to give it preference. Actually, the amount of business they do is pretty close. That's because many commission brokers, including Merrill Lynch, Pierce, Fenner & Beane (through which about 15% of the Big Board's odd-lot business originated last year), alternate their business between the two houses.

- **Variable Ratio**—How much business do odd-lot firms do, in relation to round-lot sales? The trend has been moving higher in the past couple of years. For the first four months of 1952, the number of shares traded in odd lots was about 28-million, 22.6% of reported round-lot sales. For all of last year, it was 20.1%. In 1950 the ratio had reached a postwar low of 18.4%. In many years before that, the ratio has been higher than at present, even in years when trading was slow.

This seems to pull the rug from under recent statements by Wall Street spokesmen that the little man is getting more interested in owning stocks. You'd expect the little man to buy odd lots.

However, it is true that much of the little man's stock money has gone into mutual funds, which have developed fast during the last decade or so (BW—Feb. 9 '52, p120). The fund will sell you as many or as few shares as you like at the going price.

The odd-lot houses, of course, haven't

Why Synthetic Rubber Is Here to Stay Despite Removal of Natural Rubber Restrictions

*New oil-extended synthetics cost less,
last longer, increase rubber supply*

World War II cut off our supply of natural rubber. The Korean War put it under Government controls. So the past 11 years have been years of intensive synthetic rubber research and development. Such amazing advances have been made that the lifting of Government controls on natural rubber will have little effect on the use of synthetics.

Suitable plasticizer needed

Prior to World War II, most butadiene synthetic polymers were considered commercially unusable. These rubberlike materials were difficult and costly to process. All known processing methods caused a loss in desired characteristics. What was needed was an inexpensive process aid that would make synthetic polymers workable without destroying their molecular structure. In 1940, at the outset of the American synthetic rubber program, numerous petroleum derivatives were submitted by oil refiners to the rubber industry for testing as process aids or plasticizers. Sun Oil Company, in addition, set up an intensive research program of its own. Sun felt it had to acquire extensive firsthand

knowledge of petroleum chemistry, as applied to rubber processing, if it was to assist in the solution of the problem in the shortest possible time. Sun's research program proved invaluable.

In 1941 Sun introduced Circosol 2XH, which turned out to be the much-needed plasticizer. Its use during the war years helped keep civilian and military automotive equipment on the move.

New developments increase supply, improve wear

In 1946, when natural rubber came back, emphasis on the synthetic program decreased. The Korean War, however, with Government control of natural rubber, gave synthetic rubber research its second impetus. The problem this time was to extend the supply of synthetic rubber by developing new types that would wear longer.

Rubber technologists knew how to make tougher synthetic polymers, but they were almost impossible to process with standard equipment. Once again petroleum derivatives were tried as plasticizers. And once again Sun Oil Company came through with the plasticizers that would do the job.

Circosol 2XH and a newly developed product, Sundex 53, made it practical to use the new, tough synthetic polymers. In addition, it was found that by adding large amounts of inexpensive Circosol 2XH or Sundex 53, one can get more synthetic rubber from a given amount of raw materials. These Sun process aids have helped make it possible to increase the supply of synthetic rubber at least 22 percent. Products made from oil-extended synthetic rubbers last longer and cost less. That's why these new oil-extended synthetic rubbers are here to stay.

A concrete example of *why* is found in the tire industry. The oil-extended synthetic used by one company, as compared with standard synthetic rubber, gives 32 percent more tires from a given amount of raw materials. These tires wear 18 percent longer and cost 31 percent less.

For more information...

If you are working with synthetic polymers, Sun will be glad to put its experience and technical assistance at your disposal. Just write to **Sun Oil Company, Dept. BW-6, Philadelphia 3, Pa.**

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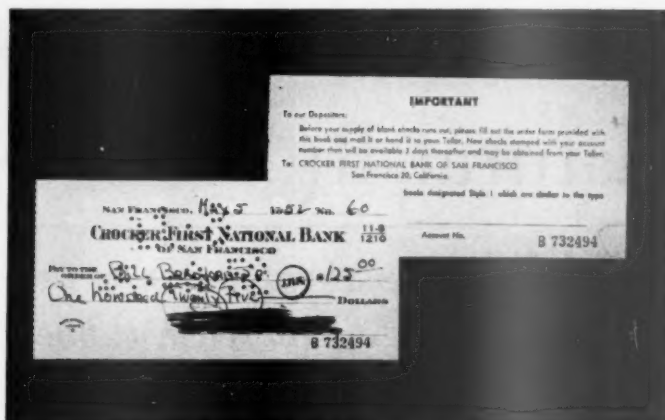
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been too happy about this trend to open-end shares. They point out that brokerage commissions, plus the odd-lot differential, are very often well under 1% of the round-lot price on which odd-lot sales are based. That's much cheaper than the extra charges involved in buying mutual fund shares (even though there's no charge when such shares are sold). The purchase of mutual fund shares usually involves a loading charge of 8% of asset value.

However, the odd-lot dealers have proved one point recently. Raising the differential won't necessarily hurt business.

Last year they had to boost their differential on stocks selling at \$40 and up from $\frac{1}{4}$ to $\frac{1}{2}$ point (from 12 $\frac{1}{2}$ ¢ to 25¢ a share). Commission brokers argued that this would discourage small investors (BW—Aug. 18 '51, p. 124). But the figures show that their share of the business has increased.



NUMBER on the bottom of the check matches requisition that depositor files to get new blanks. Method reduces sorting errors and traces unsigned checks. In addition . . .

Code Speeds Bank Work

Banks have always had a certain amount of trouble in sorting checks that depositors draw on their accounts. Signatures are often hard to identify. That sometimes means a check gets posted to the wrong account. Whenever that happens, there's trouble.

The Crocker First National Bank of San Francisco has been working for three years on a coding system for checking accounts, to simplify the sorting job. It has just announced the details of the system. Assistant vice-president Earl J. Tooker says Crocker is willing to share it with other banks.

• **Can't Miss**—The system Crocker has developed is called alpha-merical. It uses both numbers and letters (picture, above). They are arranged so that when checks and deposit slips are sorted in numerical order, they are automatically grouped in alphabetical sequence. After that they can easily be posted to individual accounts.

Sorting under this system is so simple anyone can do it, releasing experienced people for other jobs.

Naturally, it is still necessary to verify signatures, to see that the signature on the check is the authorized one. But

this process goes faster, too, since the teller knows from the code number which signature card to pull out of his file.

• **It Pays**—Here's how an alpha-merical code works: Each customer is assigned one letter (the first letter of his family name), followed by six digits. This provides 999,999 numbers within each letter. Since the most accounts Crocker has under one letter is about 2,000 (under "S"), it can space individual code numbers 500 numbers apart. That simplifies assignment of code numbers to new accounts and reduces the chances of error.

When a new account is opened, the assigned code number is stamped on the signature card, history sheet, and other documents. A pad of checks is stamped and given to the customer, along with a stamped requisition (picture, above) for printed checks.

Of course, it costs the bank a little more to print its checks with individual code numbers. But Crocker has found since it put in its system that customers don't waste as many checks as they used to. That alone helps a lot in paying the printing bill.

PLANES & PROFITS



SALESMAN BILL LANDAU
Contacts mean contracts



OMAR'S PILOT, JACK MALONEY, AND CESSNA
Field work means team work

PERSONNEL

Another You

In this year of mounting costs and zooming work loads, many a businessman wishes he were born twins. Across the U. S., thoughtful executives are turning to the 20th Century's greatest tool for saving time and doubling efficiency: the business airplane.

CLIENT RELATIONS

Man on the Spot

When Salesman Bill Landau tells an Iowa trucker or farmer, "I'll drop by in an hour," he means it—even though his prospect is 120 miles away. Landau, 38 and bespectacled, thinks nothing of setting down his Cessna 170 in a field beside the farmer's tractor—and polishing off an insurance contract then and there.

Landau heads Motor-Ways, Inc., a Des Moines truck insurance firm. He must work fast when he hears a trucker is about to rewrite insurance. The amount of business he does is in direct proportion to the number of shipper-clients he sees.

Getting Around. Landau considers driving tiring and risky. Before he got his first business plane, he drove many thousands of fatiguing miles a year, was limited to a 100-mile radius of Des Moines. Now, with the Cessna 170, he covers more than twice as much territory, flies 60,000 air miles a year, is able to reach out for more choice accounts. By keeping flight plans flexible, Landau by-passes bad weather, gives his Cessna steady use.

Getting Ahead. Shrewd Bill Landau lets his Cessna help sell him to his

clients. Restrained truckers, their interest aroused, become friendly and receptive. Instead of being just another insurance salesman, Landau is a respected and well-remembered visitor.

Landau likes his Cessna's roominess, its ease of handling and dependability. But most of all, he's happy because the Cessna has expanded his business while relieving him of tedious highway travel.

MANAGEMENT

Branching Out

A persistent problem facing U. S. business is how to link the home office with the branches—and vice versa. Home office brass is constantly urged: a) to get out in the field more often; b) to cut down "away-from-desk" time.

This problem has been neatly met by Omar, Inc., a major Midwest bakery with a Cessna 190 and pilot. The company Cessna 190 is in constant use shuttling officials between general offices at Omaha and branches up to 700 miles away. Omar's Cessna 190 makes short work of travel time, ties together company operations with an efficiency no other transportation offers.

YOUR BUSINESS

Now, let a Cessna prove its value to your firm. Charter a 170 or 195 before you buy. Fly it on every trip you make. Compare it with any transportation—in actual economy, in time you save, in new profits it alone makes possible.

Your local Cessna dealer will gladly make all arrangements. See him, today!

* * *

For more information on Cessnas and more case histories on the use of Cessnas in businesses similar to yours, phone or see your local Cessna dealer. He is listed in the classified section of your telephone directory. Or write CESSNA AIRCRAFT CO., Dept. 53, Wichita, Kansas.



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a Gulf Stream idea in gas heat for Shirtsleeve Comfort

Thanks to BORG-WARNER engineering

In much the same way that the Gulf Stream is deflected by and warms the coast of Florida, so the revolutionary Ingersoll Wedgetube Heat Exchanger sends a swirling "gulf stream" of warm air into your home. Result—Shirtsleeve Comfort all winter long.

This Wedgetube Heat Exchanger consisting of a battery of tapered, wedge-shaped flues, is an outstanding feature of all forced air gas furnaces produced by Borg-Warner's Ingersoll Products Division. As hot gases travel upward from the burners, they are compressed, and slowed down by the wedge



tubes. In addition, they are deflected by indentations in the flue sidewalls, thus producing a "scrubbing" action. This "Gulf Stream" flow gives an increased and more efficient transfer of heat to the air in the home. Less fuel is used. Fuel cost is lowered. Furnace life is lengthened. Comfort is increased.

Like all Borg-Warner products, the Ingersoll Wedgetube is the result of B-W's policy to "design it better—make it better." It is one more typical example of how...

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Gloomy Movies

Drop in earnings belies earlier hopes. Loew's and United Paramount slash quarterly dividends.

"If you're looking for a hot speculation, buy movie stocks. They've been in the doghouse too long. Hop aboard for their 'safe' 8% to 10% yields."

Last fall that was popular advice in Wall Street (BW—Nov. 10 '51, p140). But a lot of Streeters who echoed it are wishing now that they hadn't. Two of the fancy Dan yields were slashed last week; movie stocks as a group dived to a two-year low.

• **Squeeze**—What had happened was simple enough. Movie-going failed to keep pace with optimistic predictions. The trade's vaunted cost-cutting program failed to work the expected wonders. As a result, profits have moved persistently downwards, instead of bounding up from last year's abnormal lows, as the Street's bullish forecasts had suggested.

Last week's wringer wasn't confined to the smaller outfits. First stockholders to feel the blow were those of Loew's, Inc., long the most stable earner in moviedom, and of United Paramount Theatres, Inc., top U. S. exhibitor.

Loew's cut back the long-established 37½¢ quarterly common dividend to a modest 20¢. On an annual basis, that's a drop from \$1.50 to 80¢. With the single exception of 66½¢ paid in 1940, that's the lowest rate in some 30 years—figured on equivalents to the present shares, which resulted from a three-for-one split in 1945.

United Paramount cut even deeper than Loew's, exactly halving its coming quarterly dividend to 25¢. UPT has been paying 50¢ ever since it was organized several years ago as a result of the antitrust split ordered in the old Paramount producer-distributor-exhibitor setup.

• **Reasons**—Loew's directors offered no explanation of their cut. But the correct answer isn't hard to find. For the 16 weeks ended Mar. 15, 1952, the company's per-share earnings were 32¢, compared with 43¢ in the same period the year before. Since Mar. 15, there seems to have been little improvement.

At United Paramount, president Leonard Goldenson blamed the bad news on two factors:

- Falling attendance at the company's chain of theatres.
- The substantial need for cash that UPT will face if its proposed merger with American Broadcasting Co. is finally consummated (page 106).

Goldenson didn't say how earnings



Isopropyl-N-3-(Chlorophenyl) carbamate

$C_{10}H_{12}NO_2Cl$

no wonder we call it **Chloro-IPC!**

Even the research chemists find those long, tongue-twisting chemical terms too much to handle. So, although such terminology is useful in identifying the constituents and general category of a substance, a new product frequently gets a much shorter name before it ever leaves the laboratory.

It's no wonder, then, that Isopropyl-N-(3-Chlorophenyl) carbamate soon became Chloro-IPC! This new Columbia-Southern herbicide shows great promise of making an important contribution to the continuing mechanization of agriculture. Extensive experiments indicate that spray applications of Chloro-IPC can reduce the labor of hoeing cotton fields by as much as 75%. Other experiments are equally favorable in controlling certain annual grasses and broadleaf weeds for a variety of other crops.

Although Columbia-Southern is noted chiefly as one of the nation's major producers of chlorine, caustic soda and other alkalis, it is also contributing valuable research and development in related products. Chloro-IPC is the most recent example; Columbia-Southern is also a major producer of BHC—Benzene Hexachloride—for processors of insecticides, and of Mono-chlorobenzene, which, in addition to numerous other uses, is a constituent of DDT.

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had been running lately. But in the first quarter, profits had been reported at only 55¢ a share, compared with 75¢ the year before. These figures do not include capital gains from property sales and undistributed income from unconsolidated subsidiaries.

• **Uneven**—Not all movie companies have suffered so severely as Loew's and UPT. At Paramount Pictures Corp., first-quarter earnings showed only a slight decline from \$1,411,000 to \$1,355,000.

Still, it's hard to find many bright spots in the earnings picture of the movies. RKO Theatres Corp.'s latest quarterly earnings were only \$138,000, compared with \$442,000 the year before. Republic Pictures Corp. was down from \$227,000 to \$187,000; Columbia Pictures Corp. from \$370,000 to \$272,000.

Twentieth Century-Fox Film Corp. was hit even harder. Although its sales were down only a little, its 1952 first-quarter earnings had plummeted to \$84,000 from \$875,000. Those earnings figure out to 1¢ a share. That has caused a lot of people to wonder how long the company will be able to maintain its 50¢ quarterly dividend.

FINANCE BRIEFS

Longer hours: Three more exchanges have joined the Curb Exchange, the Midwest Stock Exchange, and the Detroit Stock Exchange in extending trading hours, effective this week (BW—May 31 '52, p. 88). Latest recruits are the Boston Stock Exchange, the Philadelphia-Baltimore Stock Exchange, and the Pittsburgh Stock Exchange. All will stay open till 3:30, Eastern time.

• **Auto drivers** who have accidents may have to pay from 10% to 20% more for their liability insurance. Insurance people are working on a plan for New York State, often the first to adopt new insurance ideas. State Insurance Superintendent Alfred Bohlinger has strongly urged the step (BW—Apr. 5 '52, p. 115).

• **Slow market:** May trading on the Big Board was slowest for any month since August, 1949. In nine of 21 trading days, volume fell below 1-million shares. That's generally considered the break-even point by Wall Street brokers.

• **Term loans:** Hooker Electrochemical Co., Niagara Falls, has arranged to borrow \$20-million from insurance companies at 3½%. The loan will run for 25 years. Thermoid Co. has borrowed \$1-million for working capital from Massachusetts Mutual Life Insurance Co. for about four years at 4½%.



Shall I wrap it up?

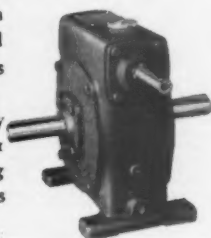
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THE MARKETS

How Steels Took the News

	High	Low	Close	Change	Tuesday	Change
	Last	Week's		Last	Price	This
	Week	Range		Week		Week
Allegheny-Ludlum	\$37½	\$37	\$37¾	+¼	\$37¾	+¼
Armco Steel	36½	35¾	36	36½	+½
Bethlehem Steel	48¾	48¼	48¾	+¾	48¾	+½
Carpenter Steel	45	45	45	45
Colorado F & I	19½	19¼	19¼	-¼	19½	-½
Crucible Steel	32¾	31¾	31¾	-¾	32¼	+½
Granite City	23	22¾	22¾	-½	21¾	-7½
Inland Steel	44	*43	43	-1	43¾	+5½
Jones & Laughlin	22¾	22½	22½	-½	22¾	+¼
National Steel	44¼	43	43	-¼	43¾	+¾
Republic Steel	40½	40	40½	-¼	40½
Sharon Steel	35½	34¾	35	-5½	35
U. S. Steel	38¾	37¾	38	-½	38
Wheeling Steel	36¾	36	36½	+½	35¾	-¾
Youngstown S & T	44	43½	43¾	-½	43¾	+½

* New 1952 low.

Steel Shares Treading Water

It's much too early to see how the new steel strike will affect industry earnings. Supreme Court decision raises a lot of questions that will have to be answered first.

Wall Street's enthusiasm over the Supreme Court's voiding of President Truman's seizure of the steel industry lasted only a few moments. Though some steel shares jumped a point on the news, they faded again in a few minutes as the new steel strike got under way (table, above).

The new strike pointed up the fact that there is still some distance to go before investors can make up their minds about (1) earnings in the steel industry, and (2) how a final settlement will affect corporate earnings as a whole.

• **When and If**—A whole string of unknowns will have to be solved before Wall Street can make any intelligent guesses about earnings.

The first big question is how long will the strike last. If it goes on for two or three weeks, it will aggravate shortages in certain types of steel products, which till recently had been coming up.

Sooner or later, of course, some kind of wage settlement will emerge. Presumably, the union will get at least part of its demands for higher wages.

After that comes the question of whether the steel companies will be allowed to pass on all or part of the wage increases in the form of price boosts. They are entitled to some adjustments under the Caperhart Amendment, and probably will be allowed a bit more.

• **Last, But Not Least**—Only when all these things are known can Wall Street start making up its mind about the most unpredictable factor of all: Will the industry be able to make its price boosts stick?

That, of course, depends partly on the condition of steel inventories when the strike ends. But it also depends on how strong the demand for steel will be later this year.

If the steel companies are able to pass their higher wage costs on to industries that buy steel, naturally that's going to be more or less bullish for steel shares. But it may not be so good for the shares of companies that buy steel. Unless they, in turn, can pass their higher costs on to their customers, their profit margins are going to get slimmer.

That might put consumer goods in-

dustries in a bad situation. Their profit margins will be squeezed—assuming the consumer continues to be as stubborn about prices as he has been during the past few months.

• **Off Balance**—One thing to remember is that a new wage pattern in steel will probably lead to new wage boosts in other major industries. That's certainly going to change the present economic balance.

It will lead to higher costs in indus-

try, but larger payrolls may also bring out more consumer demand.

All these factors obviously make it impossible to estimate the long-term effect of the steel situation in stock prices. They have made investors so dizzy that volume continues to be a mere trickle. On the Big Board, only a little more than 1-million shares changed hands on the day the decision was made known. The next day, volume sagged to only 940,000 shares.

Small Drop in New Issues Inventory

Corporate and dealer shelves register a small dip from preceding two weeks, but it still isn't a sellers' market.

There are fewer unsold remnants of recent corporate security offerings stacked up on dealers' shelves than there were two weeks ago (BW—May 24/52, p153). That's about the current picture for municipal new issues market, also.

No one in the underwriting trade, however, feels particularly elated over the past fortnight's selling job. Despite all efforts, too much capital remains tied up in hard-to-move goods.

• **Gloom**—In the corporate market, for instance, Wall Street estimates that close to \$75-million of 1952's flood of bond offerings still remained undistributed early this week. Such a "float" is only some \$25-million less than was reported in mid-May. And there would have been almost no change if the syndicates handling two recent "sticky" offerings hadn't finally decided to "pull the plug," giving dealers the right to dispose of their many unsold bonds at whatever prices they could get, instead of the fixed offering price set originally.

Even less headway is reported on unsold bits of recent equipment trust certificates, offered by railroads. These added up to around \$23-million on Monday; two weeks earlier the float had been \$1-million less.

Equally sluggish has been the market for new equity issues. Both preferred and common stocks have been involved. Several recent offerings of preferreds have been conspicuously sticky. And some syndicates handling important offerings of new commons have been forced to disband before their shelves were clear—with a resulting drop in quotations from original offering levels.

• **Not Alone**—Municipal dealers shared the common lot of oversupply this week. According to the so-called Blue List, more than \$24-million of recent tax-exempt offerings remained unsold. That's only \$7-million less than a fortnight earlier. And it's quite possible that it understates the amount awaiting

distribution. The Blue List includes only the bonds dealers have advertised for sale. It sometimes omits a few remnants of sticky offerings actually gathering dust on the shelves.

Where do we go from here? That's still anyone's guess. And the trade claims it isn't at all worried about the situation. Some price concessions would restore shelf stocks to normal, these dealers contend.

That's probably true enough. Much of the backup seen in new issues thus far seems to have been due basically to too-optimistic pricing. Despite all the new securities that have been hitting the market this year, it is evident that there is still plenty of money around seeking investment—provided the price is right.

• **Guesswork**—Finding the "right price" lately, however, has been difficult for the underwriting trade. And one bad guess can wipe out the profits on many a successful deal.

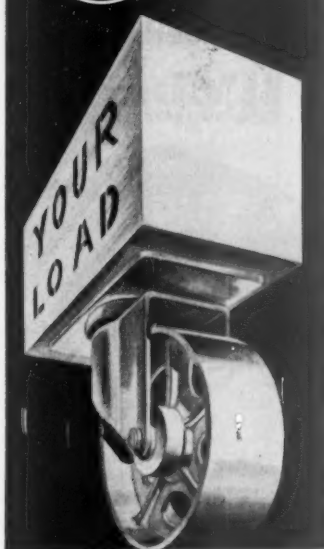
Consider, for example, what has happened after three recent bond offerings were released to seek their own level. Columbia Gas 3½s, 1977, promptly dipped to 99.5% of par, compared with the original offering at 100.93%; Consumer Power 3½s, 1987, sank to 101.75 from 102.97; Illinois Bell Telephone 3½s, 1984, from 101.53 to 100.

Take a look, too, at what happened last week when three recent hard-to-sell new common stock offerings were thrown to the wolves. Once price restrictions were removed Gustin-Bacon Mfg. Co.'s new shares skidded from \$21.50 to \$17, Food Machinery & Chemical Corp.'s new common from \$44.75 to \$43, and Lion Oil Co.'s new common from \$40½ to a price of \$39.

Obviously this calls for caution. Whether it will modify underwriting bids for new issues remains to be seen. But it's something that would-be borrowers and stocks sellers should keep in mind. It may portend higher financing costs for them.

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LABOR



MINERS' CHIEF Lewis, once a miner himself, was speechless after viewing scene of mine disaster at West Frankfort, Ill.

62 Years of UMW: Strife,

This is the second in a series of appraisals of major American unions.

Last week officials of the United Mine Workers met for two days in Washington union headquarters with John L. Lewis. A close-mouthed, thoroughly disciplined group, they had nothing to say, officially or unofficially, about their discussions. Nor did Lewis.

But the odds are better than even that they talked about how a steel strike (page 28) will affect UMW demands on the coal operators, and how UMW will press those demands.

And in the coal fields—notorious as rumor patches—a story was making the rounds: Old John (Lewis is now 72) is going to make this the biggest year of his career. In some places it was being



DIRTY WORK in a damp, dark place and life in an isolated community have always characterized mining and bound the miners together.



MILITIA stood guard over nonunion miners during organizing battles in the 1930's in bloody Harlan County, Ky., last anti-union stronghold.

Strikes, and Strength

said he wanted the 1952 contract to be his monument in UMW.

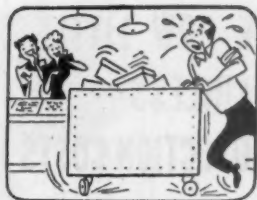
If such talk sounds too melodramatic for a labor union, remember this is UMW. Its history is the stuff of drama.

I. The Breed

In 1894 the infant United Mine Workers of America—with only 24,000

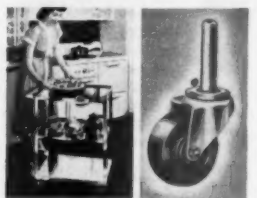
members—called a strike, and within three weeks, 180,000 miners left the pits. Three years later the union's membership had dwindled to only 9,700, but when it called a strike again, 150,000 workers laid down their tools and stayed out 12 weeks.

• **Homogeneous Group**—Such solidarity seems to be a general rule among miners everywhere; it comes with the job or,



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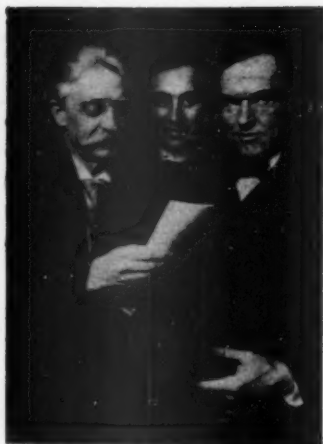
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PATRON SAINT, John Mitchell, flanked by liberal leader Henry Lloyd (left) and lawyer Clarence Darrow, during 1902 anthracite strike.

more probably, with the way of life.

In Germany, when Hitler outlawed the trade unions and replaced them with the Nazi Labor Front, his only important opposition came from the miners. The only major strikes reported out of Russia in recent years have occurred in the mines of the Don Basin.

The fact that England was being blitzed did not deter British coal miners from walking out during World War II. And in 1943, despite frenzied public opprobrium, UMW members left the pits three times within a few months, even after the mines had been seized by the government. The miners thought they were getting a raw deal, and nothing—war needs, no-strike pledges, federal controls, government labor-relations machinery, and half-hearted orders from UMW headquarters—prevented them from using the weapon they knew best, the strike.

• **Hazards**—The life of a miner means danger, darkness, dampness below ground, and isolation both at work and at home. Coal mines are frequently full of methane gas that is odorless, tasteless, colorless, and explosive. During the past 50 years an average of seven men have been killed every day in the pits. Single disasters like the ones at Centralia and West Frankfort, Ill., kill more than 100 at a time. And falling roofs, though they kill less at a time, account for half the fatal accidents over the years.

From the early days of candles, the industry has progressed to safety cap lamps and even floodlights on the work faces of many mines, but the daily descent into the pits, the long ride through the underground tunnels, and many of the mining operations are

still shrouded in darkness or half-light.

The miners take all this as a normal part of their lives, but one of their songs goes "It's dark as a dungeon and damp as the dew," and many others are full of fear and fatality.

• **Isolated Life**—Most of the miners' time below ground is spent in small passages cut off from the rest of the mine, and when they come up the shaft at the end of the day they go home to their little town, generally as isolated from the rest of the world as their work places are from each other. This isolation is dictated by the geology of coal. The mines have to be over the veins no matter how far that puts them from other towns. Thus the typical mining community has generally been a group of company-built frame houses within walking distance of the pits with a company-owned store to supply miners' needs.

The life of the community revolves about the mine, literally and in terms of economics and social life as well. This homogeneity more than anything else shapes the 100-year history of unionism in the coal fields and accounts for much of the apartness and power of the United Mine Workers.

II. Forerunner of UMW

The first organization of U. S. miners occurred in the Pennsylvania anthracite fields in 1849. Several locals sprang up, but got nowhere until 1861, when they were pulled together into the American Miners Assn. The Civil War was on, and demand for coal was high, so the group made some gains. But dissension and unsuccessful strikes caused it to fold in a short time.

• **Siney's Try**—Other efforts to organize followed, but the next major try came in 1873, when John Siney, one of the early great miners' leaders, formed the Miners' National Assn. of the U. S. at Youngstown, Ohio. In a year the union had 224 locals and 24,000 members. But the panic of 1873 hit the industry hard, and the operators began cutting wages and discriminating against union members. The membership turned against Siney and other leaders, blaming them for their plight. Siney was indicted for conspiracy, and, though he was acquitted, his union died.

In Pennsylvania, a few years later, a group of young Irish miners calling themselves the Molly Maguires organized secretly to fight imported strike-breakers and anti-union operators with terrorist methods. For a while they contented themselves with derauling mine cars and sniping from the hills at mine officials. Then the operators hired a Pinkerton detective to work his way into the organization. When violence continued, 14 of the group were arrested, convicted of murder on testi-



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by don herold

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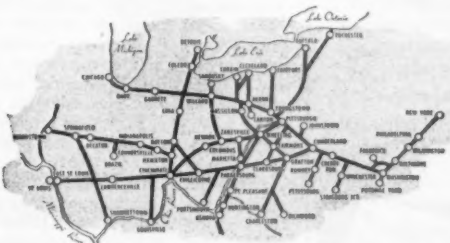
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mony of the Pinkerton man, and hanged.

• **Rival Groups**—Meanwhile, two other groups were organizing miners, the Knights of Labor and the Amalgamated Assn. of Miners, a group of locals spreading from Pennsylvania to Illinois. The Amalgamated was wrecked by a strike in 1884, but by this time many of its members were sold on the idea of a national miners' union. They organized the National Federation of Miners & Mine Laborers the following year.

The federation and the Knights' fought, made peace, and battled again. There was still no national miners' union. Then the federation changed its name to the National Progressive Union of Miners & Mine Laborers and joined the two-year-old AFL in 1888. In 1890 the Knights' Assembly 135 and the National Progressive Union buried the hatchet and joined forces as the United Mine Workers of America.

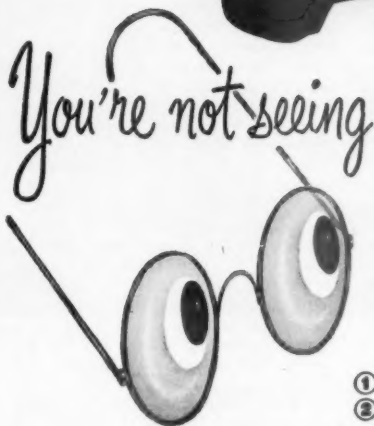
III. UMW Is Born

The birth of the UMW was a major step because it gave one miners' group more power than any other group ever had—though it was not large yet—and because its founders officially recognized many of the organizational and economic problems of the coal mining industry.

• **New Rules**—In an effort to increase the effectiveness of its strikes, the founders outlawed local strikes called without permission of the national president and one board member. But UMW stood for conciliation and arbitration in preference to striking. It recognized that the problem of the industry was too many mines and too many miners. It decided to fight for shorter working hours and limits on daily production in accordance with market demands.

• **Old Problems**—For many years before, the industry had suffered from overproduction, relieved only by war demands and occasional business booms. Nevertheless, whenever demand rose suddenly, new mines were opened by fly-by-night operators out for a fast dollar. They rarely hired union miners at union rates, and, since labor ran anywhere from 60% to 80% of production costs, the easiest way to boost profits—or cut losses—was to cut pay.

Even mines that dealt with unions more or less willingly were faced with the same economics. Competition was always rough, and as the railroads expanded and gave most mines access to most markets, it grew rougher. The pressure to cut wages increased. Even when mines were losing money, it often was cheaper to operate than to close down and take a complete loss on



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UMW APPRAISAL starts on p. 132

the equipment—provided wages and other costs could be cut to the bone.

That was what faced the UMW when it opened for business, and that has been its problem ever since, although it has been further complicated in recent years by a new kind of competition—other power sources such as gas, oil, and hydro.

• **Gains Came Slow**—After the strike of 1894, the union got little more than a truce. The operators weren't ready to band together over any large area to bargain, but they agreed to remedy one of the traditional gripes of the miners. Since pay for all the men who do the actual digging and loading is based on tonnage mined, the question of accuracy of weighing is a big one. The operators agreed to let the miners pick their own checkweighmen and pay them out of their own pockets.

The union fared better after the strike of 1897. Even though it had a treasury balance of only \$11,000, it scored a major victory. Operators of bituminous mines in western Pennsylvania, Ohio, Indiana, and Illinois—known as the Central Competitive Field—met with the union in 1898 in an interstate joint conference. They made major concessions and signed the first of a series of agreements that ran until 1927. Most important, they granted the eight-hour day. In addition, they agreed to a 10¢-per-ton blanket raise plus a complete set of wage and tonnage rates for the mine workers.

The goal of the agreement wasn't to give equal pay for equal work throughout the field. Instead, it aimed at setting wage differentials for various areas in terms of access to markets, freight rates, and other competitive factors in an effort to regulate and equalize competition. The union agreed, in turn, to launch an organizing drive in the price-cutting nonunion, southern mines.

IV. Patron Saint

The year after that, 1899, John Mitchell, the UMW's patron saint, was elected national president at the age of 29. Though the agreement of the year before had done much to insure the union's future, Mitchell probably did much more. He refused to fight the introduction of mining machines, but he did battle for "prudent business methods" and "the sacredness of contracts." He got support nationally, both in and out of the union for his ap-

proach, from everybody but the Socialists and became something of a national hero.

When Mitchell took over, the anthracite miners of eastern Pennsylvania sent a call to the UMW for help. Much of the field was owned by a few eastern railroads, and the miners themselves were largely eastern Europeans and Italians, in contrast to the predominantly Welsh, English, Irish, and Scottish in the soft-coal pits. Wages were low, company-store prices were high, and the miners were generally demoralized.

When Mitchell called for a conference with the operators in 1900, they refused to show up. Mitchell picked up support wherever he could from the press, the clergy, and various civic groups, and then he called a strike. There were only 9,000 UMW members in the area, but 145,000 miners walked out.

• **Little Cooperation**—The operators refused to recognize the union, but they made some minor concessions. Mitchell ordered the men back and decided to wait. Two years later he struck again, and the turnout was just as heavy; 150,000 laid down their tools and sang "me Johnny Mitchell man" and "Johnny da Mitch win."

The operators at first refused even to meet with the union. Finally, the operators were induced by J. P. Morgan to attend a conference with the miners at the White House sponsored by President Theodore Roosevelt. A settlement upped wages 10%, cut working hours to nine, ended discrimination against union members, and set up a grievance-handling board. But the operators still refused to recognize the UMW.

• **Firmly Intrenched**—Despite severe ups and downs that hit the industry in the following years, the UMW was firmly entrenched. In 1912, after Mitchell had left office, the anthracite operators finally gave it recognition, and membership jumped to 104,000 in the hard-coal mines.

In bituminous coal, the Central Competitive Field continued its agreement, but low-cost, nonunion mines—especially south of the Ohio River and in the West—were putting pressure on the union operators of the North while they fought off union organizing attempts with political power, armed guards, and state militia. A standard device for demoralizing striking union members was to evict them from company houses and replace them with strikebreakers.

Trouble from nonunion areas ended for a while with the outbreak of World War I. The industry prospered and the union got the Central Competitive Field to give the miners a share in the lush profits. Wartime controls were



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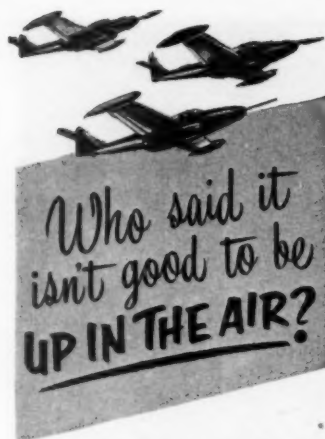
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"... With his own union strong, Lewis launched the biggest venture in U.S. labor history ..."

UMW APPRAISAL starts on p. 132

placed on prices and wages in the coal fields, and an antistrike clause was enforced by the Federal Fuel Administration. When the war ended, the miners' union pressed for an end of controls and a wage boost.

V. Lewis Emerges

At that point a new figure emerged to lead the union, John L. Lewis, then acting president. Lewis called a strike, but when an internal battle threatened the union he sent the men back to await a report from a Presidential commission set up to investigate the miners' demands. The board awarded a 27% pay boost and extension of the eight-hour-day clause. Lewis took over officially as president. As his vice-president, he picked Philip Murray. From then on, though the miners and their union are inseparable, the UMW spoke with Lewis' voice.

Rough times followed for the industry and the union. The nonunion mines of Virginia, West Virginia, Kentucky, and states farther south began to take over the market, eclipsing the Central Competitive Field as the major bituminous producers. Lewis managed to keep the interstate agreement intact until 1927, but by then few of the members were able to continue paying scale wages. At the same time, attempts to organize the southern mines were fruitless. The operators used every kind of coercion and violence to fight the UMW. And in one case, at Herrin, Ill., a mob of miners and their townspeople allies lynched a group of mine guards and supervisors.

• **Hard Going**—While Lewis stuck to his policy of "no backward step" meaning no renegotiation of contract wage rates—pay-cutting was being practiced all through the mine country. In 1928 Lewis finally gave in and accepted pay cuts in Iowa, Illinois, and Indiana.

By then, union membership was waning, and union influence had weakened to the point where Lewis began to seek aid through federal legislation. Socialists and other opposition forces in the union had for decades supported nationalization or at least federal regulation, but most of the union's leaders, including Lewis, then a stalwart Republican, held out for bargaining without government interference.

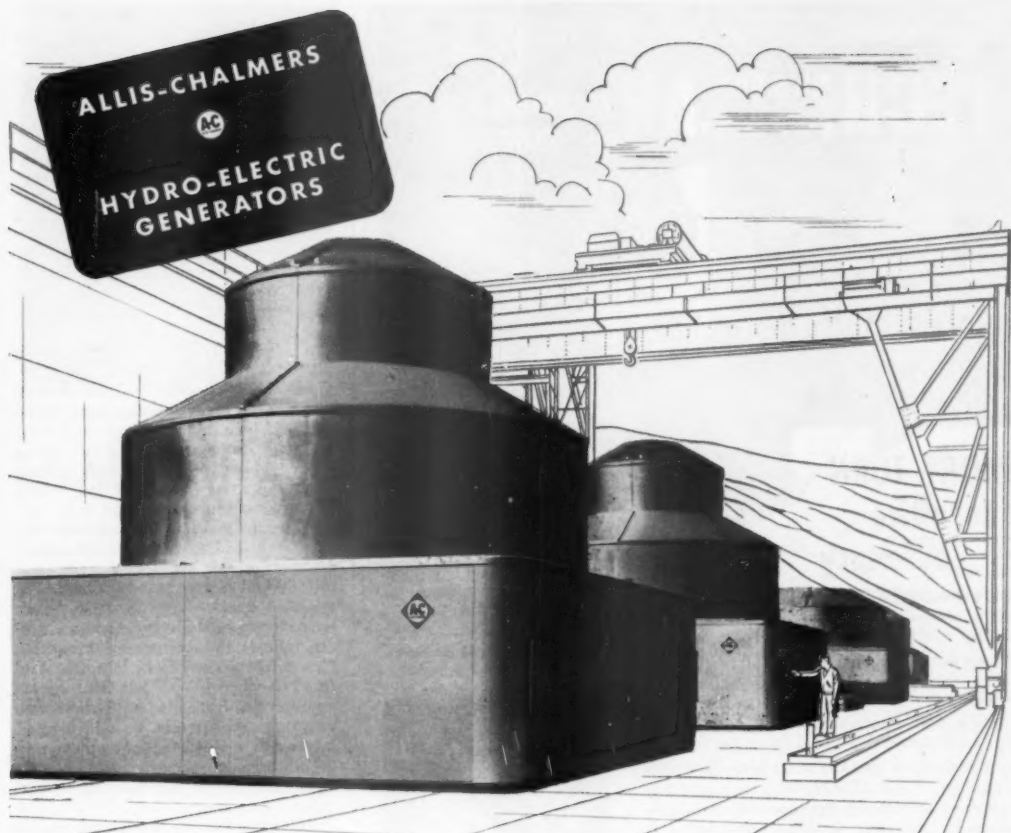
But by the end of the 1920's Lewis saw little to be lost by calling on the government. He got a bill introduced in

Congress calling for federal price regulation and the right to organize. It didn't pass, but it paved the way for the New Deal's National Industrial Recovery Act in 1933, which gave new life to the moribund union.

• **Recognition**—As soon as NIRA was law, Lewis sent hundreds of organizers into the coal fields to tell the miners that "the U.S. government is guaranteeing you the right to organize." At the same time the CCF agreement was replaced by a new one that more realistically represented the changes in coal producing areas. It was the Appalachian Agreement, covering mines from Pennsylvania south, instead of westward. The western mines were classed as outlying districts, but the object was still to fight ruinous competition. In the same year the union negotiated for the first time with the steel companies for the "captive mines," though it wasn't until 1941 that the UMW won a union shop through an arbitration award. Meanwhile, union membership was growing and with it the union's power. A left-wing attempt to form a rival group, the National Miners Union, in Harlan County, Ky., failed, and the UMW finally organized that blood-stained area in the late 1930's. The only opposition that has persisted is the Progressive Mine Workers of America, which struck out on its own when Lewis ousted officials of Illinois District 12 in 1932. But PMW's membership has dwindled from a high of 36,000 to about 15,000 today, and nearly all of it is in Illinois.

Elsewhere, Lewis has gradually replaced too independent district officials with his own "provisional" appointees. This was especially easy during the lean 1930's. In explaining why it was done, an official UMW history reports: "During these dark days most of the districts spent all their money. The International Union took over the administration of their business, and appointed such officers as were needed."

• **Policy Split**—With his own union strong, Lewis launched the biggest organizing venture in U.S. labor history. Financed by \$2-million from the UMW treasury and staffed by many UMW organizers, he set up the CIO. Within a year it had cracked the great anti-union factions of American industry and become a power in the U.S. economy. By 1942 it was flourishing, but Lewis and the mine workers had left after bitter feuds over politics and war policy. In 1946 Lewis took UMW back into the AFL. He left again in 1947 to remain independent, when AFL leaders refused to adopt his adamant position against the Taft-Hartley act. Lewis has refused to this day to sign the non-Communist oath, although he has banned Communists from his own union for years. Both AFL and CIO



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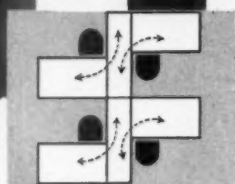
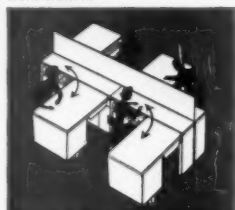


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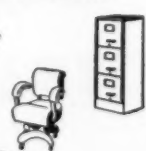


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presidents, Green and Murray, are ex-miners who got their present jobs through Lewis.

VI. On Its Feet

In 1943 the miners won portal-to-portal pay by striking the government. Three years later the mines were again seized when UMW struck, and the government made a settlement, granting a seven-hour day, a pay boost, \$100 vacation pay, and the start of the miners' welfare and pension fund through a 5¢-a-ton operators' contribution. That nickel has since been bargained up to 30¢ per ton.

Another strike in 1946 cost the union \$700,000 in fines. A series of new agreements since then have raised miners' wages to the highest of any major industry, \$2.23 an hour average, and their welfare, vacation, and portal pay makes them the best provided for in general. But competition from other fuels, mechanization of the mines, and more efficient use of coal have cut seriously into employment. Less than 400,000 miners are now working in soft-coal mines, and only 70,000 anthracite miners have jobs.

• **Other Fields**—Back in 1936 Lewis tried to spread his organization into other fields by chartering District 50, Gas and Byproduct Coke Workers. And in 1942, when UMW left CIO, he expanded the district's jurisdiction into anything organizable. Led by his brother Denny, it has tried to move into everything from chemicals to taxis with some success, but not enough to offset union losses in coal.

• **Common Cause**—Though the organization of the miners and the organizations of the operators still engage in toe-to-toe slug matches, Lewis knows that the operators are no longer the miners' real enemies. The jagged cyclical movements of the industry, the secular growth of oil, natural gas, and hydro at the expense of coal—these are the problems afflicting management and miners alike.

For Lewis, the over-all strategy has been a relentless drive for greater benefits for his men. At the same time, he has refused to make work by fighting the machines operators have introduced in an attempt to cut costs. Since many miners are deserting the pits for more stable work and little new blood is coming into the industry, rapid mechanization will strengthen the surviving operators. They will be better able to meet future demands and thus keep miners among the best paid of all workers.

An there may come a day—perhaps not in Lewis' time, perhaps not in the time of present coal management—when union and operators stand together in a common attack on these problems. After all, as Eleanor Roosevelt once said, "The miners can do anything."



HUTCHESON'S Carpenters (AFL) press...



HAYES' Machinists, turning them to...



REUTHER'S CIO Auto Workers, as...

IAM Fight Threatens AFL Unity

When an AFL and a CIO union president are found in a huddle, it leads inevitably to talk of a merger.

That's what happened last week when Al Hayes, of the International Assn. of Machinists (AFL), and Walter Reuther, of CIO's United Auto Workers, conferred in Reuther's Statler Hotel room in Washington.

But the speculation was wrong. Neither union is going to leave its federation, though the meeting of the two unions' leaders was a peace council, nevertheless. They were reinforcing their two-year-old "no raiding" pact (BW—Feb. 11 '50, p100), which has been wearing thin from friction at the local level where rivalry—especially in aircraft—is strong and spirited.

I. Background

Both men foresee further strains and stresses arising if, as now appears likely, Congress strips the Wage Stabilization Board of its disputes functions and drops both labor and business representatives from the board.

The word is out that, if Congress sets up an all-public board, union leaders will declare war on wage controls. In the last two wars, and in the Korean War to date, they have had a voice in emergency labor-management procedures, and they don't like the thought of getting the boot.

Union chiefs regard as a threat to collective bargaining the idea that an all-public board could tell an employer—on request and during negotiations—the maximum he could offer his employees.

• **Battleground**—If an all-public board, confronted with a major wage agreement that clearly exceeded stabilization regulations, tried to cut it down, then

the issue could easily lead to a battle. AFL and CIO bigwigs seem to feel that a few strikes against such decisions would destroy the effectiveness of the board, and that, if they don't do it, John L. Lewis will.

Stubborn strikes often tempt rival unions to move in and try to take over. Unions find themselves making war on each other; their energy is diverted from the main battle. The machinists well remember how Dave Beck and the teamsters complicated their struggle at Boeing's Seattle plant a few years ago (BW—Dec. 11 '48, p100).

The machinists and the auto workers are natural rivals in the expanding aircraft industry. Both Hayes and Reuther are smart enough to see that without a jurisdiction code they might be indulging in expensive attrition.

These were some of the things on the two labor leaders' mind when they got together last week.

II. Feud

For Hayes, the meeting seemed especially important now, for the machinists' feud with the AFL building trades unions is getting up a new head of steam. Stabilizing the machinists' front with the CIO made sense and sound strategy.

The focus of the machinists' conflicts in the AFL is the millwrights, a specialist branch of the carpenters' union. The trouble usually involves the erection of machinery or the installation of turbines and pumps. The machinists and the operating engineers run a secondary feud, which usually involves the repair of roadbuilding machinery.

The AFL executive council, meeting in Boston, directed president William

Green to write to Hayes and ask him to explain why he is carrying his jurisdictional complaints to the National Labor Relations Board, instead of using internal AFL procedures.

• **Tight Corporation**—Many outsiders who have followed the fight take the executive council's deadpan approach with a grain or two of salt. The Building Trades Dept. has the so-called Dunlop Board for settling jurisdictional disputes, but the machinists don't believe they would stand a chance there, even if they could get in. Their AFL brethren don't consider them a building trades union, as indeed they are not, in most respects.

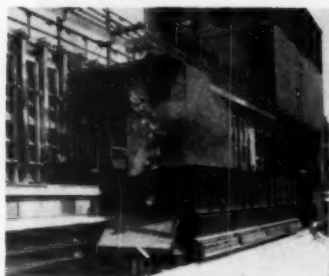
That leaves the machinists' jurisdictional problems in the hands of the executive council, on which the building trades have four seats. The machinists are the third-largest AFL union—only the teamsters and carpenters outrank them—but they have no council seat. Even the service trades have four council members.

Of course, a union can always appeal to the AFL convention, as Hayes' predecessor, Harvey Brown, did with annual futility. The council controls the convention, and the council becomes a well-knit fraternity of mutual protection when any of its members is attacked.

• **Top Dogs**—The unions of executive council members alone have more than 31,000 out of the 77,000 convention votes, and they can corral enough of the others for an easy majority if it comes to a showdown.

The machinists, under Harvey Brown, tried withdrawal from the AFL, a threat that the carpenters' William Hutcheson was always reported to have used to get his way. The machinists quit paying AFL per-capita tax in 1943 and were

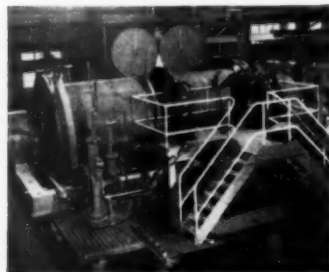
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suspended. They went back in 1945, but again stopped payment a few months later when they felt certain commitments were not carried out. They reaffiliated in January, 1951.

IAM claims about 750,000 members, but is paying per capita on only 550,000 to 600,000, a legitimate and common practice in the AFL. Its payments to the federation will run about \$265,000 this year. While this isn't big enough to buy IAM the power it needs, it is likely that it is sufficient to keep it from expulsion.

• **The Issue-Hayes'** proposed solution to AFL jurisdictional disputes is an arbitration procedure, backed by a \$100,000 "good faith" bond. But he has been ignored thus far. As a result, he has resorted to unfair labor practice charges before NLRB—as even the carpenters have done on occasion—but he doesn't expect to gain much that way.

Hayes knows full well he is up against sheer power. The nub of the contest is to persuade the employer that he must call one union, not another, when he wants a job done. And the voice of the carpenters, backed up by other building trades, carries more authority, by and large.

• **Brewer's Ails**—A current case of bitterness involves the Anheuser Busch brewery in St. Louis, where for many

years certain work was sublet to a contractor who employed machinists' members. The carpenters, it is claimed, told the brewery they would perform no work if that practice was continued.

The brewery, according to the machinists, yielded to the threat, and the machinists threw a picket line around the plant. The company got a temporary injunction in the Missouri state court. The machinists, contesting it, are asking now for removal of the issue to the federal courts.

III. Outlook

Hayes took the machinists back into the AFL last year because he saw the possibility of a unified labor movement, and he wanted the IAM to be in on it. It hasn't worked out that way, but now that Hayes is back in the federation he plans to stay in.

A merger with the auto workers is barely conceivable, but that certainly would not solve most of the machinists' jurisdictional problems. Conceivably, too, continued cynical treatment could push the machinists right out of the AFL and into the CIO, but it is extremely unlikely. Essentially, Hayes is not a divisionist, and the old-line machinists' membership apparently is not CIO-minded.



Fringe Benefits Brought to Life

Employees may tend to count only what their paychecks read and forget about the rest. A device that will help visualize fringe benefits as money in their pockets may be a big labor-relations boost. M&R Dietetic Laboratories, Inc., Columbus milk products maker, has come up with one that seems to be going over well. At its annual meeting of employees (M&R calls

them "associates"), everybody was given a simulated checkbook. Each check was written to the account of some employee benefit: Amounts represented the total paid out of the company treasury for each of 18 different services, a check for \$272,581.53 for total company outlay, and one for \$7.75 showing each employee's weekly share exclusive of profit-sharing.



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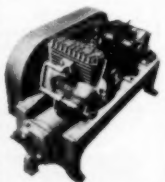
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Shortening the Work Week

More and more unions are pressing for hours cuts with no less pay. WSB sanctioned one such deal for Michigan teamsters, may O.K. another for New York brewery workers.

Union demands for a shorter week at the same pay are a big issue today. Chances are they will be even more important in the next few years, as productivity goes up and defense needs start down.

Michael J. Boyle, vice-president of AFL's International Brotherhood of Electrical Workers, hinted that at a recent five-state union conference. He urged locals claiming 200,000 members to begin planning "a system of gradual reductions in hours, with no cuts in pay," well in advance of any drop in production.

He specifically proposed: "The present standard of five eight-hour work days a week should be gradually reduced to five six-hour days, without any reduction in take-home pay." Ultimately, that would mean a 30-hour week. Where the cut to a six-hour day wouldn't be practical, Boyle suggested a work week of four eight-hour days.

Boyle's proposals can't be taken lightly. Other labor leaders also have been doing spadework for a 35-hour week, or less, either as an immediate or a longer-range goal. CIO's clothing workers' union unanimously passed a resolution for a 35-hour week at 40-hour pay at its recent biennial convention. John Burke, head of AFL's pulp and paper workers, called for a 30-hour week recently (BW-Apr. 19 '52, p. 73), and said the union is now signing contracts for 36-hour weeks.

• **Hours Cut O.K.'d**—And Wage Stabilization Board has just O.K.'d a shortened work week without a cut in pay for Michigan teamsters. But the board did not go so far as the AFL union wanted—and it had no intention of flatly sanctioning reductions in weekly hours without a loss of pay.

Limited as the decision was, though, it left CIO's brewery workers on the anxious seat. The union has a 35-hour-week contract with New York City brewers, scheduled to start last week. But WSB hasn't got around to approving it yet, so it may not take effect for a week or more.

• **Brewery Goal**—The shortened work week is a particular goal right now of the CIO brewery workers. They complain that technological improvements in their industry have cut deeply into jobs. A special union conference in Cincinnati this week is studying ways of writing the 35-hour week into all contracts nationally.

The union hoped that WSB would

hand down a decision in the Michigan trucking cases that would sanction other work-week cuts. The board didn't. Its 8-4 decision (industry dissenting) is strictly limited to the trucking case.

One reason the teamster reduction won't apply widely is this: What the board approved was a reduction of the teamsters' guaranteed work week from 45 to 42½ hours, with no loss of pay and with time-and-a-half premium pay for anything over 42½ a week. It postponed acting on a further cut in six months to a 40-hour week without a pay reduction. (The teamsters involved aren't in interstate commerce, so they don't come under the Fair Labor Standards Act 40-hour-week rules that apply to many other workers.)

• **WSB to Act**—In considering future cases, WSB doesn't now plan to hand down a policy decision that would permit self-administered cuts in hours—realizing the impact such a step might have in labor-management relations. Rather, it expects to set up some guides to use in deciding petitions.

They might include these provisions:

• That at least part of the increase required to keep take-home pay the same must be allowable under WSB's c-o-f-l rules.

• That hourly wages for the shortened work week must not create inequities with other wages in the area.

• That workers must normally be limited to the reduced number of hours. That is, the work week can't be cut as a dodge to give employees more money by working them several hours overtime each week.

The Pictures—Cover by Ed Nano. Rus Arnold—78 (bot.), 79; Associated Photographers—32-33; Hans Basken—124, 146; G. M. Basford Co.—60; Bettmann Archive—133 (top); Brown Bros.—134; Bureau of Reclamation—94, 95; Cal-Pictures—102, 103 (bot.); Frank Associates—84, 85; General Mills—34 (rt.); Int. News—145 (ctr.); McGraw-Hill World News—157; Machinist—145 (rt.); Ed Nano—68, 69; Jim Nelson—174, 175; Solar Aircraft Co.—66; United Press—56, 101, 145 (lt.), 154; Dan Weiner—152; Wide World—27, 28, 29, 106 (bot. lt., bot. rt.), 132, 133 (bot.); Dick Wolters—166 (rt.).

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Norway Backs Down From C-of-L Hikes

One big trouble with cost-of-living and other wage hikes granted in flat cents-per-hour is that they reduce the percentage spread between high- and low-paid employee. This in turn may cut incentives for skilled workers—since as pay goes up, they get a relatively smaller share of the pie.

In the U.S., blanket increases have been standard procedure in major industries, especially since the Wage Stabilization Board approved General Motors-type cost-of-living and annual improvement factor clauses.

In Norway, where all wage contracts

have been based on a cost-of-living index since the war, management and unions alike have been giving a closer look to the squeeze on skilled labor. And last month unions and employer associations in the iron and metals industry sat down and wrote a new contract that eliminated any reference to the c-of-l index and instead provided for increases of 20 ore an hour to skilled workers, 15 ore for semiskilled, and 13 ore for unskilled. (An ore is 1/100 of a krone or about 1/7¢.)

It's the first time that any Norwegian industry has retreated from the postwar wage policy. Other groups now negotiating contracts have accepted the plan though, so it is a safe bet that it will mark a major switch once all other wage pacts have been signed.

THE LABOR ANGLE

AT LONG LAST there seems to be starting some serious thinking about what will surely be the source of tomorrow's big labor problems. Tomorrow will arrive for each industry when recessive pressures, already felt throughout the economy, become strong enough to make it imperative that an industry cut labor costs.

That tomorrow is already here for textiles. And it is the dramatic developments in labor relations in textiles (BW—May 24 '52, p.166) that have raised some management eyes beyond the steel dispute, the legal questions of seizure, and the attack in Congress on the Wage Stabilization Board.

WHETHER one believes that collective bargaining in America since the CIO's formation in 1936 has been one-sided or not, the fact is that most bargaining since then has been concerned with increasing labor costs. There are many labor leaders today—and many management men, too—who have never negotiated in any way except up. Negotiating down will be a brand-new experience for which they are little prepared.

Important though that fact is, it is probably less important than its corollary: Contracts providing less instead of more will also be a brand-new experience for millions of union members.

To millions of employees of American industry, the CIO opened what has so far been a one-way street. To be sure, it took disputes, strikes, and trouble, but since the

CIO came into the basic industries, all wage movements have meant more money per working hour. Under such circumstances, there is nothing greatly remarkable about the CIO's attracting and holding a large membership.

WHAT WILL HAPPEN when the CIO has to do what the AFL has had to do more than once in its history: retreat instead of advance?

It would be sheer folly for management to assume that economic recession will bring an end to mass unionism. No less important as a union function than getting the biggest possible gains is holding losses to a minimum. Some of the biggest battles in labor history have been fought not for higher wages, but against wage cuts.

Nevertheless—taking AFL history as a guide—there are severe union losses in a period of retreat. There are bitter internal union struggles. There is industrial turmoil. As the economists put it: The flexibility that an economic system sorely needs as it shifts gears on the business cycle is impaired by rigidities introduced by labor problems.

When the next recession comes, it will find the economy in a more unionized state than it ever was before at a gear-shifting point. It will also bring the CIO to its first test in retreat. The trouble in textiles now suggests that it will not be an easy time. Responsible management and responsible labor leadership are well advised to do some preparing in advance.



'FARM FAMILIES Have Set the Postwar Pace in Home Decorating with



SPRED *Satin*

A. D. Duncan, Vice President, The Glidden Company
General Manager, Paint Division



"THE NATION'S farm families are investing a big part of their increased earnings in better living. Extensive new building and redecorating of homes have made the farm a preferred paint market," says Mr. Duncan.

"In addition to a barn and eight service buildings on the average farm, there is often more than one house on the place. Farm houses tend to larger size with larger rooms—and more surface to paint.

"Our full color advertisements in *Country Gentleman* and other farm magazines—combined with aggressive merchandising—have paid off handsomely in sales of Glidden Spred SATIN, the original latex base paint. Spred SATIN is especially helpful to farm families because of its ease of application, fast drying

and extreme washability. Farm people certainly have gone for it—and for our Endurance House Paint and other lines, too. Orders from rural dealers this year have exceeded our estimates by nearly a third."


Country Gentleman concentrates its 2,300,000 circulation among the Top Half families—the group earning 9 out of every 10 farm dollars. They're today's biggest group of profitable new customers—for paint, home furnishings, foods, appliances... every product for better living.

Dealers coast-to-coast say "Country Gentleman helps me most to sell my best rural customers" . . . and manufacturers place more advertising here than in any other farm magazine.

Country Gentleman


... now including *Country Living*, the first complete editorial program of better living for every member of the rural family.





COTTON IS KING IN
Fine Parsons Papers
...and they are your best buy

The new letterhead portfolio shown here includes ten original letterheads created by Lester Beall, leading American graphic arts designer. They are in one, two, and three colors, with engraving, embossing, lithographing and printing—yet all could be made by your local suppliers. Mr. Beall also tells how you can design your own stationery. Write today on your business stationery for your free copy of this portfolio "How to Design a Letterhead." Parsons Paper Company, Dept. 6A, Holyoke, Massachusetts.



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Scrap iron and steel supplies are again running short of the amounts needed to maintain the present high level of steel production.

You're asked to search out the idle iron and steel in your plant and yard . . . and turn it over to your local scrap dealer.

Be sure to include obsolete machinery, un-used jigs and fixtures, gears, pulleys, chains, pipe and other equipment . . . non-ferrous scrap is needed now, too!



**DON'T DELAY...
 GET IN THE SCRAP NOW**

**McGraw-Hill
 PUBLISHING COMPANY, INC.**

330 WEST 42nd STREET • NEW YORK 36, N.Y.

LABOR BRIEFS



Worker father of the year for 1952 is Christopher T. Ziegler (picture), a stock chaser at Fruehauf Trailer Co.'s Avon Lake (Ohio) plant. Selected by the National Father's Day Committee, Ziegler is a member of AFL's United Auto Workers Local 925.

More cases (15,500) were filed with NLRB in the last fiscal year than in any other year in its 16-year history. The board also decided a record number of cases and held more representation elections (6,525) than ever before.

Small employers will get a break under a new WSB policy. The board plans to exempt employers of eight or less persons from wage controls, with some exceptions, not yet announced.

Unsanctioned picketing that halts construction work in the Pittsburgh area will make unions liable for fines, the AFL Pittsburgh Building & Construction Trades Council announced recently. Offending unions will be fined \$600 for the first day of a stoppage, and \$100 a day thereafter.

Textile turmoil continues (page 150). . . . In Montreal, AFL's United Textile Workers suspended 12 pro-Communist officials and picked as top Canadian organizer Sam Baron, who jumped CIO Textile Workers Union of America with George Baldanzi. . . . In Leaksville, N. C., workers representing 5,000 at Fieldcrest Mills voted to bolt TWUA for UTW. . . . Meanwhile, TWUA struck major carpet mills this week, but effects of the walkout aren't certain because Baldanzi has wooed away the Bigelow-Sanford local and possibly others.



Food for thought (for industrial executives)...

FOR industrialists concerned about manpower these days, here is some "food for thought"...

Manpower is readily available in the modern Southland. It is good manpower — competent and capable, eager and able to learn new skills, conditioned by temperament, training and tradition to deliver an "honest day's work."

The availability of willing workers in a region so generously endowed with so many other benefits and advantages is playing a vital part in the dynamic industrial development now taking place in the South.

"Look Ahead—Look South!"

Harry A. DeBetta
President



SOUTHERN

RAILWAY SYSTEM

WASHINGTON, D. C.

The Southern Serves the South

BUSINESS ABROAD



ADENAUER AND ACHESON TOAST

Economic Freedom for West Germany

Politically, West Germany will become only a half-sovereign nation when (and if) the peace contracts signed last week at Bonn are ratified. The Allies retain key political and military powers to enable them to step in fast if West German democracy is threatened—either from the East or from within.

What the West Germans will get is almost complete economic sovereignty. And that could cause plenty of headaches for the West. Economically, the German Federal Republic is the most powerful nation in Europe (BW—May 17 '52, p.170). How Bonn uses its tremendous economic power once it's free will have a major impact on the course of the cold war and on progress toward European unity.

• **Uncertainties**—It's too early for any specific assessment of how the peace contracts will affect West Germany's business relationships with its neighbors. The documents are vague, couched in legal verbiage; time is needed to work out procedures and establish test cases. Only time will tell the fate of many of the clauses—those covering reparations, return of property stolen by the Nazis, compensation to

victims of Nazi persecution, settlement of prewar debts, treatment of foreign businessmen in Germany.

Some important economic questions aren't covered at all in the peace agreements. East-West trade policy is one. After ratification, the management of that trade will be in West Germany's hands; Washington won't be able to tell the Germans what they can and what they can't ship through the Iron Curtain. We'll have to use diplomatic negotiation to win German cooperation in the embargo on strategic shipments to the East.

The U.S. will hold strong cards in that game. West Germany still depends on American dollar help. And that could be cut off if Bonn began to trade fast and loose with the Soviet empire.

• **Small Potential**—There really isn't much in trade with the East for West Germans in straight economic terms. Industrialization of Communist satellites has cut sharply into their demand for industrial products and has reduced the amount of Eastern raw materials available for the West. There are strong pulls the other way, of course. Plenty of West German businessmen—

particularly in the consumer goods field—are nostalgically anxious to resume large-scale trading with the East.

All of this is wishful thinking right now. East-West trade boils down more to a political rather than an economic problem. It's out on any big scale unless West Germans are prepared to break politically with the West.

Odds are that West German trade with the East will be an annoying and tricky problem for the West—but probably not a major one. Actually, many of Germany's neighbors in Western Europe aren't anywhere nearly so concerned about it as is the U.S. Many think that Washington has been entirely too strict in its clampdown on East-West commerce.

• **Steel and Coal**—It's other aspects of a free Germany that worry its neighbors—especially France. A case in point is what happens to the German steel and coal industry after ratification. The powers of the Allied High Commission and the coal and steel control groups are to be transferred to a new German agency, charged with carrying out the remainder of the deconcentra-



More Light on the Subject!

Not too many years ago, you often had to *shift for yourself* to obtain adequate light where it was most needed. In those days, lighting was left pretty much to guess work or chance; for there was no practical way to accurately measure light to make certain it was adequate at every machine, work station or desk.

But the development of the direct-reading foot-candle meter by WESTON made it possible and practical to *insure* adequate lighting for every worker . . . and to *maintain* it at correct seeing levels. This compact meter is simply placed on the bench or other working surface, and it instantly measures the amount of light (daylight, artificial or mixed) available at that location.

The excellent lighting now evident everywhere

in factories, offices and institutions stems in large part from this instrument development. For industry now gives *lighting* an important place in the regular maintenance routine. And it has *paid off* . . . in better health, improved work efficiency, higher morale.

Developments like the foot-candle meter are the result of WESTON's emphasis on research . . . constantly seeking new or better ways of getting things done with instruments. That's why it pays to check WESTON on all problems, whether involving light, electricity, moisture, temperatures or pressures. WESTON Electrical Instrument Corporation, 617 Frelinghuysen Avenue, Newark 5, New Jersey . . . *manufacturers of Weston and Tag Instruments.*



WESTON *Instruments* . . . INDICATE — RECORD — CONTROL

SHIPPING ELECTRICAL PARTS?

Cut packaging costs! Cut labor assembly! Cut shipping costs! Prevent damage! Do as other leading manufacturers of electrical equipment parts:

Use **TEKWOOD***... tough, versatile, low-cost Tekwood. The Kraftpaper-and-hardwood sandwich.

Tekwood is light... strong... durable. Won't shatter or splinter. Puncture-proof. Easy to work and handle. Hard to hurt. Meets military specifications. Send for samples and details.



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World's largest plywood organization
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Briggs & Stratton engines are known the world over as "Preferred Power" for all types of tools, machines, appliances and equipment.

Briggs & Stratton Corporation, Milwaukee 1, Wis., U. S. A.



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"We have found Travelletters to be far more practical than any other method we have known. It is accepted by all recognized hotels; it is quick and economical; in fact, its small cost is more than offset in saving of time." (User since 1933)

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TRAVELETT CORPORATION

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GREENWICH, CONN.

You advertise in Business Week when you want to influence management men

tion program. Then it will be up to the Germans to work out steel and coal problems with their Schuman Plan pool partners.

That will be a critical test of the Germans' skill in using their new economic sovereignty. They could smash the embryonic structure of European unity if they used the Ruhr's economic muscle to dominate, rather than help guide, the Schuman Plan.

• **Foreigners**—With ratification, Bonn will have a free hand in its treatment of foreign businessmen. They'll find the going tougher once the protecting umbrella of the occupation is folded up. The peace contracts contain a bevy of clauses designed to protect foreigners from discrimination. But it's anybody's guess how faithfully they'll be observed. Historically, Germans have tended to stack the cards against outside business interests.

The only specific protection granted foreign firms is immunity from the "equalization of burdens" capital levy for the next two years. That's a tax proposed by the Bonn government—designed to raise almost \$500-million yearly to provide for those Germans who lost all their possessions, homes, and businesses during the war. Germans who came out of the war unscathed will have to ante up in a big reshuffle of the nation's wealth.

Some Washington officials feel that U. S. interests in Germany were short-sighted to insist on this temporary immunity. Already, they say, it has earned ill will among Germans who can't understand why the "rich Americans" shouldn't pay their taxes.

• **Cartels**—In the field of deconcentration and decartelization of German trusts, the existing Allied regulations remain in effect until the Germans pass a federal antitrust law. Already, a draft proposal has been submitted, setting up a Federal Cartel Agency. And though the Germans are obligated by the peace contract to pass the law, the West can't dictate the terms, any more than it can prevent the Bundestag from repealing any law passed.

In general, U. S. officials don't believe Germans will embark on a wholesale repeal of occupation reforms. They're faced with a fait accompli. Much of the job of breaking up the steel, coal, chemical, banking, movie, and radio combines is pretty well finished. Our observers think that enough vested interests have been built up in the new industrial setup to protect its essential framework.

No one can promise, though, that West Germany won't revert to its pre-war, tightly cartelized setup if the economic going gets tough. I. G. Farben, the huge chemical combine that got priority attention from occupation trustbusters, is now in three sections,

each big and powerful, all likely to work closely together.

• **Military Expenses**—Costs of maintaining U. S., British, and French defense forces in a free Germany are likely to bring serious economic troubles, too. Under the peace contracts, Bonn is supposed to continue to foot most of the bill during the rest of 1952. But next year, if present plans work out, the bulk of German defense appropriations should be going for West German armed forces. That will put new stresses on the already overstrained French and British military budgets.

The British will have to pick up the check for their Army of the Rhine—or ask the U. S. to split the bill. And the U. S. will certainly have to pay its own way. So it's certain that more U. S. taxmoney will find its way to West Germany in 1953.

U.S. Oil Prospectors Take Off for Formosa

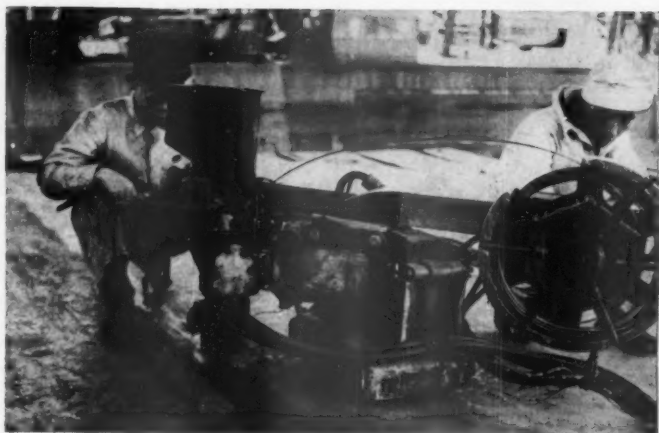
There's lots of oil in Formosa, Dr. Hubert Schenk, head of the Mutual Security Agency mission to Formosa, believes (BW—May 31 '52, p. 108). If Dr. Schenk is right, it means savings for MSA, and money for Chiang Kai-shek's government. But all this hangs on the findings of Exploration Contractors, of New York.

As of March, 1952, MSA had authorized more than \$10-million for petroleum shipments to Formosa. Actual shipments to date total \$4.8-million: \$1-million from the U. S., \$3.6-million from the Middle East, and the rest from Japan. Oil supplies in Formosa would lift the burden from the U. S. and help the Formosan economy earn foreign exchange. (The oil might possibly be refined in the new facilities to be built in India.)

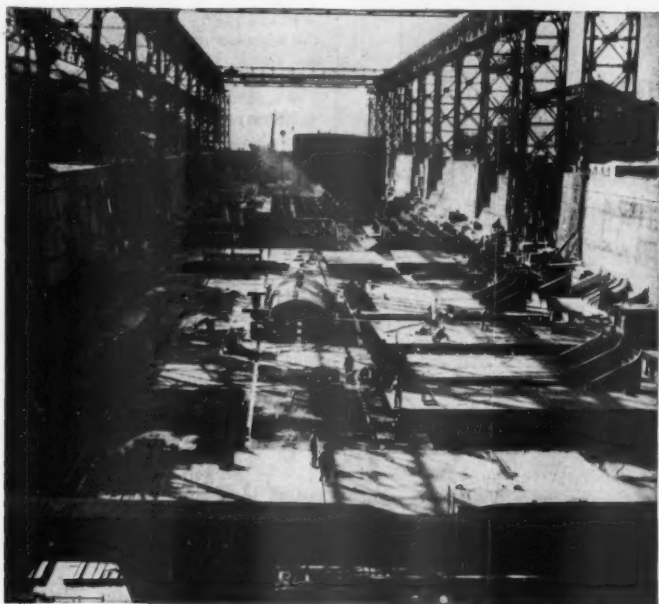
The story of oil on Formosa goes back to the days of Japanese occupation of the island. They drilled one productive well. Dr. Schenk thinks they tapped only the northernmost rim of the total deposit. He believes that large reserves may exist on the western part of the island.

• **Double Check**—In 1946 the Chinese government asked Glen M. Ruby, of Exploration Contractors, to make a preliminary survey. On the basis of Ruby's report and Schenk's independent observations, the firm has sent Howard Meyers, to make a complete study and suggest further action, types of equipment, and amount of capital necessary for development.

But there are bound to be repercussions if large oil resources are developed so near the Chinese mainland. It might give the Reds another incentive to try to take over the island.



Japanese Study American Methods...



... In Shipyard Run by U.S. Builders

Japanese shipbuilders are getting a lesson in American production methods from a U.S. shipping firm, National Bulk Carriers, Inc., of New York. The firm is in Japan because it can build tankers there for its fleet faster and cheaper than it can anywhere else. Also, it has space enough in the former Imperial Japanese navy yards at Kure to build 60,000-ton tankers, something it couldn't do before in its cramped Norfolk (Va.) yards.

Already under construction in Kure is a 38,000-ton oil tanker. It will be finished by the end of the year, and will be followed by three more. NBC hopes to go on with two more of the same size, then start some 60,000-tonners.

Up to 1950, NBC had been building its ships in Norfolk. But the yard was only big enough for 30,000-ton tankers, so NBC had to look for more space. To find it, the firm picked E. L. Hann, its shipbuilding supervisor who had made



"Dan Smith" may be any one of your men—in the office next door or in a remote part of your plant. Suppose you had to talk with him *right now!*

You could pay him a visit. That would take your time, interrupt your work, and leave your office empty. Then, too, you might find that Smith is absent on a similar errand!

You could have your telephone operator connect you. That takes her time from customer calls—and ties up your telephone (and Smith's) so neither of you could receive city calls.

The *best* way, however, to talk quickly with anyone in your organization is by Automatic Electric P-A-X—the separate telephone system you own! P-A-X is always available for calls within your organization. It improves service on outside calls.

It saves steps, time and money for your business! To get the full story of these and the many other advantages of P-A-X, just address:

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Please send your new Bulletin No. 1735 to:

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Foolhardy?

...half-protection
against fire
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is foolhardy, too

Sure, water will put out the fire. But what will it do to your records?

Carbon dioxide offers *full* protection. Teamed up with

a Kidde Fire Extinguishing System, it smothers fire automatically, causes absolutely no damage, leaves no mess to clean up. It actually disappears into thin air.

For anything from a hand portable to a total flooding system, consult Kidde, the world's largest manufacturer of carbon dioxide fire extinguishing equipment. Write today for full information,

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a name for himself during World War II as one of Henry J. Kaiser's "Tanker Champions." Hann looked at Bremen and Bremerhaven in Western Germany, but shied away from the red tape involved in dealing with three occupying powers. Then he found just what he wanted in the Kure yard.

• **The Setup**—NBC paid \$850,000 for a 10-year lease on the 1.9-million sq. ft. of building floor space and graving docks. Hann estimates that the company now has \$10-million tied up in Japan, with at least \$7.5-million of this in materials.

In addition to excellent yard space and buildings, NBC got a bonus of a large reservoir of skilled but cheap labor. Kure, with upwards of 25,000 unemployed, has a wage rate equal to 20¢ per hour. NBC figures that that will more than offset the higher costs of materials (Japanese steel is 40% higher than U.S. steel), make it possible to turn out Kure-built tankers as cheap as in the U.S., or cheaper.

• **Cost Cutting**—By Japanese standards, the labor saving and efficiency at NBC are almost miraculous. The Japanese figure tanker construction runs about 130 manhours per ton; NBC's is about 40% less. NBC accounts for the difference this way:

- Automatic welding cuts welding manhour costs to less than 40% of Japanese costs.

- Fabricating pipe assemblies in the company's pipe shops rather than in the ships cuts piping manhour costs by 65%.

- Prestudy of engineering instructions enables foremen to spend full time on fabrication and assembly, raises labor efficiency 50%.

- More efficient materials handling has cut down on heavy lifting.

- **Other Innovations**—Besides his labor-saving techniques, Hann has brought in a lot of new management ideas. Employees are surprised—and impressed—when they can look through NBC's glass-enclosed offices and see that the boss is working, too. In most Japanese offices, executives sit in small, walled-in offices. NBC also keeps its office staff to a minimum—the total office force numbers 50.

Hann has eliminated the hordes of "checkers" that Japanese offices have. At first, every purchase order had to be stamped by 12 men, each man checking on the accuracy of the man ahead of him. Hann cut the middle 10 men, gave final responsibility for each order to one man. He also cut out purchasing by friendly negotiation and instituted a system of bids.

In labor relations, pay procedures got an overhauling. Hann cut out a complicated program of work hours, put in an eight-hour day. Another tilt at tradition is his selective appointment

Dynamite: Oil Detector

PROBLEM...

... to help professional oil "prospectors", or seismograph recording crews, to obtain more accurate subsurface surveys of prospective oil fields.

SOLUTION...

... special Hercules explosives which, detonated below the surface, provide positive seismograph recordings of the resulting shock waves. Among these are Vibrogels® ... which detonate under severe water pressures; Spiralok® ... rigid dynamite cartridge assembly that saves time in loading; and Vibrocaps® SR ... detonators that reduce the danger of premature firing by static electricity and eliminate "time-lag" between firing and actual detonation of explosives charge.

RESULT...

... greater accuracy, efficiency, and economy in exploring potential sources of petroleum. Hercules' developments in dynamite and blasting supplies are helping to improve efficiency and cut costs wherever explosives are used in industry.



Hercules' business is solving problems by chemistry for industry...



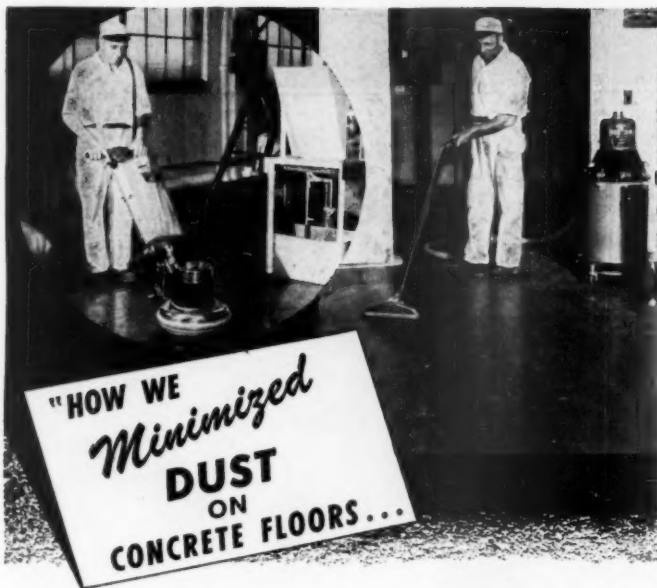
... rubber, insecticides, adhesives, soaps, detergents, plastics, paint, varnish, lacquer, textiles, paper, to name a few, use Hercules® synthetic resins, cellulose products, chemical cotton, terpene chemicals, rosin and rosin derivatives, chlorinated products and other chemical processing materials. Hercules® explosives serve mining, quarrying, construction, seismograph projects everywhere.

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with THE MULTI-CLEAN METHOD!"

"Keeping our floors sealed with Multi-Clean Concrete Preserver holds dust to a minimum throughout the plant and makes them easier to keep clean and sanitary," says the floor maintenance director of Griggs, Cooper and Company, large mid-western food processing firm.

"Daily sweeping time has been cut at least one-third because heavier dirt doesn't stick to the hard, smooth finish, and dust sweeps up easily. Moisture, too, is prevented from penetrating the floor surface, and makes it impervious to alkalis, grease, acids, etc.

"In our spice and baking powder rooms, dust is extremely fine and hard to sweep up. Here we use the Multi-Clean industrial vacuum which gives us an efficient and dust-free operation.

"We wet mop all our concrete floors once or twice a week and buff them once a month with a fine steel wool disc under a Multi-Clean floor machine to loosen any stubborn dirt and restore the finish. Multi-Clean Concrete Preserver is applied every 6 months to a year, depending on traffic conditions.

"With the Multi-Clean Method of floor care, our concrete floors are kept in better condition to stand the rigorous traffic they get every day. Then, too, they're always clean and attractive, and repairs and replacements are practically non-existent."

Every Multi-Clean product carries a 100% guarantee.



Multi-Clean Concrete Preserver



Multi-Clean Floor Machine



Multi-Clean Wet-Dry Vacuum

MULTI-CLEAN

PRODUCTS, INC.

free!

FLOOR MANUALS

Each for the proper care of a specific floor. Check the coupon for the manuals of your choice.

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Gentlemen—I would like to know more about the Multi-Clean Method for my floors. Send manuals I have checked.

<input type="checkbox"/> Asphalt Tile	<input type="checkbox"/> Concrete	<input type="checkbox"/> Rubber Tile
<input type="checkbox"/> Wood	<input type="checkbox"/> Terrazzo	<input type="checkbox"/> Linoleum
<input type="checkbox"/> 9-Job Floor Machine	<input type="checkbox"/> Wet-Dry Vacuum	<input type="checkbox"/> All-Purpose Scrubber

Name and Title _____

Company _____

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City _____

of workers to supervisory jobs. He picks them for ability and merit, holds no brief for the Japanese custom making formal education a prerequisite for certain jobs.

But there's at least one problem looming on NBC's horizon. Hann's workers already are more skilled than their counterparts in other Japanese shipyards, and are being paid accordingly. They feel that in time they will become as efficient as U. S. labor, and should get a premium for superior output. Other local shipbuilders are bound to react and may try to put pressure on the government to curb NBC.

BUSINESS ABROAD BRIEFS

Uranium deposits—said to be the world's largest—have been discovered in Nigeria. Mining rights belong to the British Crown; British firms will probably bid for contracts and split profits with the government.

U. S. meat imports are running high. In the first three months of 1952 hams from about 400,000 hogs were imported. Beef imports were over 63-million lb., exports were 2-million lb.

A west coast port for India, Kandla, will replace the loss of Karachi to Pakistan in 1947. It will take 3½ years to build, cost \$30-million. The port, to serve Delhi and northwestern India, will handle 450,000 tons of general cargo and 400,000 tons of oil yearly.

A new link has been added to Russia's canal system—eventually to connect north and south Russia. The 91-mi. Don-Volga canal joins Kalach and Stalingrad, and links the Caspian with the Black Sea.

Wheels: Colombian importers will get Japanese Daihatsu autos, priced from \$1,250 to \$2,200. . . . Fiji Automobile Co., Japan, will assemble 1,000 Chryslers yearly for the Japanese market. Half the parts will be Japanese-made. . . . The first 1,000 Italian Vespa motor-scooters have been sold in the U. S. Sears, Roebuck has ordered 5,000 more.

The first shipment of Jamaican bauxite—from the world's largest reserve—has arrived at Mobile, Ala., to be used at Reynolds Metals Co.'s plant in Arkansas (BW—Apr. 19 '52, p154).

Chinese-Japanese trade may get a boost from an unofficial barter agreement between Japanese visitors and Red China's International Trade-Promotion Committee. The agreement involves \$84-million. (Tokyo's Foreign Office says the pact is illegal.)



Seal of Approval

In early history, the seal signified authority and the power of approval. It conveyed prestige, and the holder secured the favorable acceptance of leaders in his community.

Today, many financial institutions are similarly building prestige and acceptance for their company name through advertising in *Business Week* . . . management's "most useful" magazine.

REASON: *Business Week* is read by a highly concentrated audience of Management-Men . . . executives entrusted with planning and carrying out the fiscal operations of their firms.

RESULT: Year after year, *Business Week* carries more financial advertising addressed to business and industry than any other general business or news magazine. Men of finance, too, have found—

YOU ADVERTISE IN *BUSINESS WEEK* WHEN
YOU WANT TO INFLUENCE MANAGEMENT-MEN

BUSINESS WEEK

330 WEST 42ND STREET, NEW YORK 18, N. Y.



In 1951 these 42 Firms Sought Management's "Seal of Approval" by Advertising in *Business Week*

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American-Marietta Co.
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American Securities Corp.
Atlas Corp. (Dividend Notice)
Bank of the Manhattan Co.
Bank of Montreal
Bank of Nova Scotia
Bankers Trust Co.
Blyth & Co., Inc.
Chase National Bank of
New York City
Chrysler Corp. (Dividend Notice)
City Bank Farmers Trust Co.
Commercial Credit Co.
Detroit Edison Co.
(Financial Statement)
Dillon, Read & Co., Inc.
The Dupont Corp.
(Financial Statement)
Eberstadt, F. & Co., Inc.
First Boston Corp., The
Goldman, Sachs & Co.
Goodbody & Co.
Guaranty Trust Co. of New York
Halsey, Stuart & Co., Inc.
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Insured Associations Dividend
Bureau
Keystone Company of Boston
Kidder, Peabody and Co.
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of New York
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Merrill Lynch, Pierce, Fenner
& Beane
Morgan Stanley & Co.
National City Bank of New York
Peoples First National Bank
& Trust Co.
Rayanier, Inc. (Dividend Notice)
Safeway Stores, Inc.
(Dividend Notice)
Standard Factors Corp.
Standard Oil Co. of New Jersey
(Financial Statement)
Standard Railway Equipment
Mfg. Co. (Dividend Notice)
Stone & Webster Securities Corp.
Suffolk County Federal Savings
& Loan Ass'n
White, Weld & Co.

Source: Publishers Information Bureau, Jan.-Dec., 1951

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to do business with

..along **AGE** lines

The diversity of these famous trademarks has two-fold importance if you're planning a new plant anywhere.

They represent a handful of the great companies with one or more plants in the 7-state territory served by American Gas and Electric System companies.

First—with your plant on AGE lines you're near the finest sources of industrial supply. You're near a mighty fine lot of big-buying customers. Fact is, half the population of the U.S. is within a 500-mile swing of the AGE System's center.

Second—the diversity of these industries proves the diversity of resources and labor skills in our 2260 communities. In an area so varied and so big, your chances of finding the best spot for your plant are obviously greater—particularly with the kind of plant-site help we're prepared to give you.

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AGE American Gas and Electric Company

Manager, Area Development Division, 30 Church Street, New York 8

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Appalachian Electric Power Company
Central Ohio Light & Power Company
Indiana & Michigan Electric Company
Kentucky and West Virginia Power Co., Inc.

Kingsport Utilities, Inc.
The Ohio Power Company
Wheeling Electric Company

INTERNATIONAL OUTLOOK

BUSINESS WEEK

JUNE 7, 1952



U. S. economic aid to Western Europe will end in June, 1953—if European economic experts have their way.

Here's how these economists figure it: The Marshall Plan was fine; it got Western Europe's production going. But direct economic aid is fast becoming a handicap. It shelters European countries from the pressures needed to produce greater efficiency.

U. S. dollar aid can't be dropped unless something else takes its place.

The dollar gap problem has not been solved. On the contrary, it's getting worse again now that the Korean War boom has worn off.

Continued military aid isn't involved in the problem. It will be essential regardless of what happens on the economic aid front.

Here are some of the things Europeans are hoping for:

(1) A big U. S. investment program in backward areas—maybe reaching \$3-billion a year, from both public and private sources, in another three or four years. Some of the business from development projects would find its way to European industry.

(2) Price stabilization—both floors and ceilings—for key raw materials like rubber, tin, and wool. Europeans figure that price props will be especially necessary if there's any sign of a U. S. recession next year.

(3) Higher U. S. imports, stimulated by lower tariffs and revamped customs procedures. Across the Atlantic, economists and businessmen think it's folly for the U. S. to go on handing out aid when Western Europe could earn a lot more by selling in the U. S.

Hardly any European businessmen share the economists' hopes of bigger sales in the U. S. They believe the U. S. market is a tough one to crack at best. And now that some American industries are asking for more protection, they think the outlook is hopeless.

Next week's decisions by the U. S. Tariff Commission will have a terrific impact in Western Europe. Trade experts both in the Administration and foreign embassies are gloomily betting that the TC will grant "escape clause" duty hikes on imports of motorcycles or watches, or both (BW-May 10'52,p148).

If that happens, you will hear this cry: "Make a dent in the U. S. market, and it will be closed to you."

Some European economists are convinced that it's a waste of time to talk about solving the problem through bigger U. S. imports, bigger U. S. foreign investments, and price stabilization.

They think the U. S. must soon decide whether it really wants: (1) an economically strong Western Europe to give a firm foundation to political unity in the West; (2) decent trading conditions for U. S. exporters, including currency convertibility and nondiscrimination for trade.

If that's what the U. S. wants, says this group of experts, we will have to face up squarely to the currency problem, maybe by setting up an Atlantic payments union.

In effect, that would make each European country adjust its economy so that it could earn dollars. As for the U. S., we would have to buy more from Europe or automatically make up the dollar gap between U. S. and Western Europe as a whole.

INTERNATIONAL OUTLOOK (Continued)

BUSINESS WEEK

JUNE 7, 1952

In good years for world trade, that gap might amount to only \$500-million, or far less than the present aid bill. In bad years it could go up to \$5-billion, or far more than we are now spending.

•
Scare tactics by French and West German Communists, engineered from Moscow, could boomerang.

Attempts to force Western Europeans into turning down the Bonn treaties signed last week could stiffen public conviction that only by building an armed, well-knit European bloc can the West get along with the Russians.

•
French Communists are in bad trouble. Premier Pinay, living up to his billing as France's "Man of the Hour," has met the Red challenge head on.

Never has a French government handled a top Communist so firmly as Pinay handled Jacques Duclos, party boss now in jail. There may be more arrests, too, but no all-out purge that would hand the Communists a martyrs' role.

Pinay's crackdown may succeed in separating the hard core of French communism from the run-of-the-mill membership. Communist strength in trade unions is down sharply over the past few years. The party's national sirdown strike, called this week, fizzled badly.

•
Pinay's bold strokes have added a political feather to his cap, strengthened his right-of-center government.

But economic forces—rather than political coups—will decide the fate of the Pinay government over the next six months (BW-May31'52,p100).

So far, the outlook is good. The Pinay gold-linked public loan launched last week seems to be getting better than expected response. It may be that Pinay will get far more than the 200-billion francs he needs.

More important, there are signs that a good proportion of the bond purchases are with new money, including a lot of hoarded gold.

•
Chancellor Butler is missing fire with his program to get Britain's trade out of the red.

The British still are running a big deficit with the European Payments Union, probably won't get into balance until fall.

There's no sign, either, that total British exports of capital goods will make up for the drop in foreign sales of consumer items like textiles and pottery. As for confidence in sterling, the impact of Butler's tight money policy has practically worn off.

•
Washington is shrugging off the surprise fascist gains in Italy's municipal elections (BW-May31'52,p108). Our Italian experts still think Prime Minister de Gasperi's center coalition can weather next year's general elections.

• Monarchists voted with fascists this time. But the two groups are deeply divided on policy, will be hard put to maintain a united front.

• Christian Democrat losses will be a lesson to militant Catholic elements in the party. They weakened the coalition in the poll.

• The elections were mainly in the south, where the extreme right is strong.

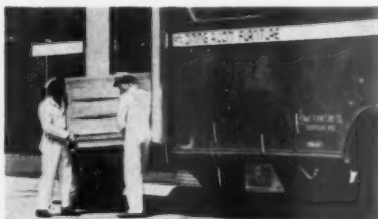
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FACTORY TO FAMILY IN FRUEHAUFS. Furniture delivered in Fruehauf Vans arrives safe and sound. Costly damage claims are cut to the bone.

RWAY FURNITURE Company used to spend a great deal of time and money in crating each piece of furniture before it was allowed to leave their Sheboygan factory for customers and showrooms across the nation. Fruehaufs make this expensive operation a thing of the past. Rway has found that simply wrapping their products in furniture pads and tying them securely in place by means of recessed cleats is ample guarantee of safe delivery when transporting in smooth-riding Fruehauf Vans.

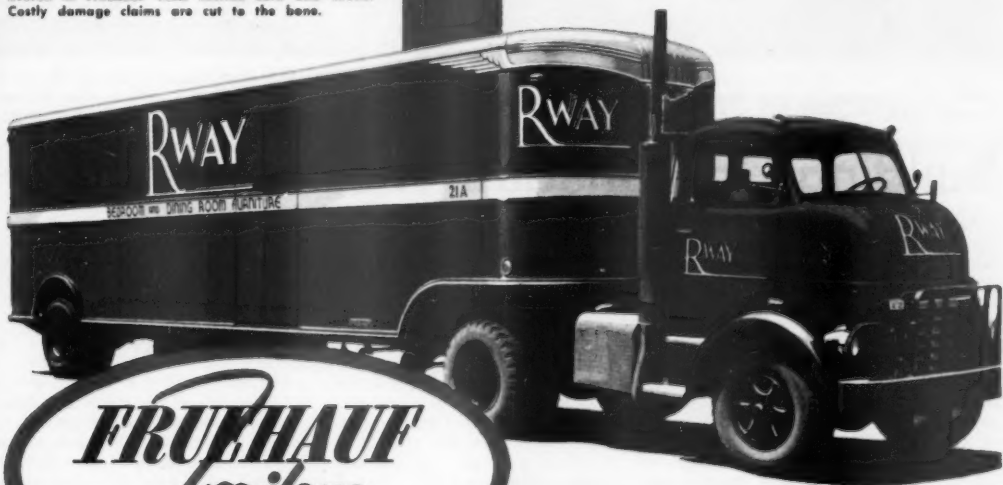
Rway deliveries, made direct from factory to purchaser, mean lower costs and fewer damage claims. The customer gets more for his money because Fruehaufs enable Rway to maintain fast, safe, economical delivery of their products.

Fruehaufs can save for you. Your business can benefit from the flexibility and economy of a Fruehauf-featured Trailer hauling system. Write for free illustrated Trailer Catalog.

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Trailers

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CANADA



WALL ST., U.S.: At Merrill Lynch's New York headquarters five young Canadians learn company ropes. By fall they'll be working in Toronto, under Canadian manager Gordon Crotty (seated).



WALL ST., CANADA: Stock exchange on Toronto's Bay St. is second among Western Hemisphere markets in share volume. It's ahead of Montreal in trading of oil, mining, industrial stocks.

Building Up Canada's Wall Streets

Next week Wall Street's "Thundering Herd"—Merrill Lynch, Pierce, Fenner & Beane—will open its first office in Canada. The world's largest stock and commodity brokerage firm will move into Toronto with all its facilities for trading and underwriting.

The idea, according to managing partner Winthrop Smith, is for the company to become a permanent resident of Canada's financial community—to grow with and do business with Canadians. The move is no surprise. Canada's own Wall Street is growing by leaps and bounds; more and more U.S. financial people are giving it a careful once-over, some with plans for setting up shop.

"We're not going up there with the

idea of scooping up some of the flush oil money," Smith says. He and his partners (Merrill Lynch had over 90 at last count) hope to do more than serve U. S. clients interested in Canada. The plan is to serve Canadians, too, with hopes of increasing ownership of stocks and bonds among Canadians.

• **Wants to Take Root**—Merrill Lynch is anxious to put its best foot forward—to try to be as much of a Canadian firm as possible. It's especially tickled by the response it got from "help-wanted" ads placed in Canadian papers. Out of 300 applicants, Merrill Lynch picked five top-notch young Canadians to come to its training course in New York. Next fall they'll return to Toronto as Merrill Lynch "account executives" (Wall

Street's name for securities salesmen).

Toronto won't be the last stop for Merrill Lynch. Plans are in the works for offices in Montreal, Vancouver, perhaps some other locations.

I. Where's Wall Street?

The debate still goes on whether Bay St., Toronto, or St. James St., Montreal, is Canada's financial capital. The head offices of Canada's two largest banks (table, page 168) are in Montreal; so is Sun Life, the largest insurance company, and the two leading trust companies. But the next five largest banks, plus 13 insurance companies, hang their hat in Toronto. Toronto boasts higher bank clearings

and tax collections. And if you want to scare up money to finance a new mine or oil property or plant, Toronto comes to mind first as the source of venture capital.

• **Toronto's Claim**—Of Canada's six stock exchanges—Toronto, Montreal, Vancouver, Calgary, Winnipeg, and recently organized Edmonton—Toronto does more business than the rest combined. Its volume of shares—last year 561.4-million—is second only to the New York Exchange in the hemisphere. In dollar volume—\$1.2-billion—only the Big Board and the Curb in New York exceed it.

Toronto capital is traditionally more venturesome than conservative Montreal money. For years Toronto has been the center of mining finance; now it's heavily in the oil business; and it has passed Montreal in trading of industrial shares. Both financial centers were slow to jump astride the Western Canada oil boom, but Toronto was a little faster, thanks, perhaps, to its mining experience.

• **Exchanges**—Today the Toronto Exchange has 95 members, close to 1,000 listings. Montreal, including the Montreal Curb Market, has 71, with 806 listings. Several New York firms are members of the Toronto mart—among them, A. M. Kidder & Co., Dominick & Dominick, Thompson & McKinnon—and there are several members of Montreal. Edward A. Pierce, long-time Merrill Lynch partner, has held a Toronto seat since the 1920's. More recently, there was a rule passed that limits seats to British subjects; foreign firms hold them by taking in Canadian partners.

About 80% of the stocks listed in Toronto are listed also in Montreal, Calgary, Vancouver. Some 90-odd show up on the New York exchanges. And there's a growing number of U. S. stocks on the Toronto and Montreal boards—such as Celanese Corp., Johns-Manville, General Dynamics Corp., all of which have Canadian affiliates. U. S. businessmen like the idea because it gives Canadians a chance to take a piece of U. S. investment in their country.

• **Canadian Rules**—Canadian exchange operating procedures aren't much different from New York's. There's one important difference for the small trader. Canada has no odd-lot specialists. In active issues, this saves the customer the odd-lot price differential; in less popular stocks, it's likely to mean slower execution of the order.

Canada has no exact counterpart of U. S. investment bankers—combining underwriting, trading, and brokerage. But the investment "dealers"—under-



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Simply shovel INSTANT-USE into hole or rut—tamp—and your floor is restored to solid smoothness—ready for traffic. Special Plasticizer makes INSTANT-USE easy to scoop out of container... easy to level... easy to tamp. Used indoors or out. Immediate shipment.

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writing and trading—come close. Where the Canadian stock broker operates on a commission basis, the investment dealer trading in government or corporate securities acts as principal—or occasionally on behalf of clients. Most dealers, however, have broker affiliates.

Most dealers—there are 203 of them—are members of the Investment Dealers Assn. of Canada. And, to a large extent, they regulate themselves. There are no Dominion regulations governing dealers and the securities business generally like our Securities & Exchange Commission. Of the provinces, only Ontario has a securities regulatory body at all comparable to SEC.

• **World-Minded**—The leading dealers have offices in New York and London, as well as around Canada. One reason is that Canada, during most of its history, has been an importer of capital; government bodies and corporations are used to making offerings abroad. Last year, out of \$1.6-billion worth of government and corporate bond offerings, \$381-million first saw the light of day in New York.

It's the "broker-dealers" who have been the get-rich-quick fraternity in Canada's conservative finance world. They trade in unlisted securities, and it's largely through their efforts that money is raised for strictly speculative mining and oil ventures. Some of the broker-dealers have been the offenders in the "hot-stock" phone and direct-mail promotions across the border that have plagued U.S.-Canadian financial relations. Actually, most broker-dealers

are reliable firms that have done a good job in getting new mining companies off the ground.

II. Financial Heavyweights

The bigwigs of Canada's Wall Street are the chartered banks and life insurance companies. The Canadian banking system is a lot different from the U.S. setup. In Canada, there are only 10 banks, compared with 14,600 south of the border. While U.S. banks are local institutions, in Canada they're national organizations operating a widespread branch system. There's a bank branch for every 3,714 Canadians. The largest, the Royal Bank with assets of \$2.5-billion, heads the list with 750 offices.

The setup tends to give strength to Canadian banking; a lot of people figure it's the strongest, if not the best, system in the world. Failures are few and far between—the last one in 1923. In six months of 1932 and 1933, the U.S. totted up nearly 4,000 bank failures.

• **Bank Business**—Called "charter banks," Canada's banks are commercial and savings institutions combined. Most of the savings deposit business is in their hands, and they're the only institutions allowed to do a commercial business. But unlike their U.S. counterparts, Canadian banks can't invest in real estate mortgages. And none of them does a trust business either, as many U.S. banks do.

Banking in Canada, as elsewhere, is changing. Bank loans add up to a much smaller proportion of total assets than

Canada's Financial Community

The five leading...

Chartered Banks

Royal Bank of Canada
Bank of Montreal
Canadian Bank of Commerce
Bank of Nova Scotia
Imperial Bank of Canada

Loan Companies

Canada Permanent Mortgage Corp.
Huron & Erie Mortgage Corp.
Credit Foncier Franco-Canadien
Ontario Loan & Debiture Co.
Eastern Canada Savings & Loan Co.

Life Insurance Companies

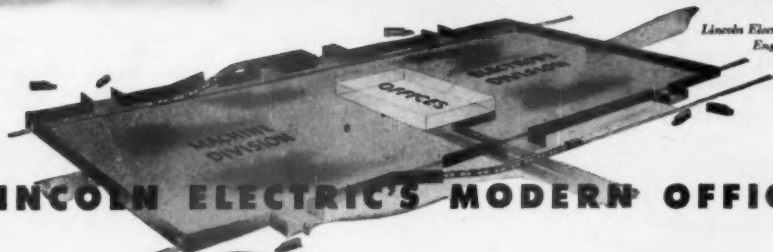
Sun Life Assurance Co. of Canada
Manufacturers Life Insurance Co.
Canada Life Assurance Co.
Great-West Life Assurance Co.
Mutual Life Assurance Co. of Canada

Trust Companies

Royal Trust Co.
Montreal Trust Co.
National Trust Co. Ltd.
Toronto General Trust Corp.
Canada Permanent Trust Co.

Investment Dealers

Wood, Gundy & Co. Ltd.
A. E. Ames & Co. Ltd.
Dominion Securities Corp. Ltd.
McLeod, Young, Weir & Co. Ltd.
Nashitt, Thomson & Co. Ltd.



Lincoln Electric Company, Cleveland, Ohio
Engineers and Builders:
The Austin Company,

IN LINCOLN ELECTRIC'S MODERN OFFICES

Efficiency First

has been made lasting with

MILLS *Movable* **WALLS**



Office Layout



Lincoln Electric Company's new 20-acre plant is designed for maximum efficiency in every area, for office as well as production operations. All offices are located in the center of the factory building, with the president's office, No. 1 in floor plan and pictured at left, in the exact center of everything, surrounded by key personnel.

Future efficiency is assured by subdividing all office space with Mills Movable Metal Walls. As progress creates changes in space requirements Mills Walls can be moved to fit new layouts—in a matter of hours, with minimum labor, at very low cost and without interrupting normal routine.

Mills Walls combine mobility with distinctively modern and attractive appearance. Insulated and sound-proofed, they require no maintenance but occasional washing to keep them looking fresh and bright.

★ ★ ★

Your office space can be made more efficient by mobilizing it, through flexible interiors formed by Mills Movable Metal Walls. For complete information on this modern, efficient way to subdivide interior space write for this easy-to-read, 48-page booklet, Mills Catalog No. 51.



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MARKETS-MATERIALS-MANPOWER

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A new outline of West Virginia's opportunities for new or expanding industries—now available to company executives from the West Virginia Industrial and Publicity Commission, State Capitol, Charleston 5, West Virginia.

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Is THIS Your Opportunity?

See four-color center spread in JUNE 14th Business Week. Some Distributorships and sales opportunities open provided you're a salesman of proven experience with knowledge of business records. . . ACT PROMPTLY . . . Resume essential.

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REGISTERED RETAIL DEPARTMENT

clues

to a \$3,000.00 sale

With only a \$20 investment in a small space advertisement in the "clues" section of **BUSINESS WEEK**, a firm secured a \$3,000.00 sale. And better yet, they received substantial inquiries for future orders up to \$10,000.00 each.

before; the ratio of security holdings is growing. Security portfolios of chartered banks in 1929 were only 13% of total assets. Like U.S. banks, the proportion of securities skyrocketed before and during the war, reaching a peak of 56% in 1944. Now they're 42%. While chartered banks don't pretend to be distributors of securities, they do act as agents for individuals—particularly in small towns—who buy bonds through the banks.

• **Insurance Investments**—Canada's life insurance companies are a major factor in the money market. And they're important in the lives of most Canadians, too. The average Canadian carries more protection than the citizen of any other nation save the U.S. And in terms of national income, the insurance in force in Canada is greater than in the U.S.

U.S. companies (Metropolitan and Prudential are the leaders) and British companies compete for Canada's life insurance dollar. Of a total of \$17.5-billion in insurance, 67% is held by Canadian outfits, 30% by U.S., the rest British. But Canadian companies operate in a big way outside Canada. They have as much insurance in force outside as at home. And Sun Life does more business beyond the borders than it does in Canada.

The insurance companies are the most important source of mortgage credit—with no competition so far as the banks go. They buy Dominion, provincial, municipal, and corporation securities, too. Since the end of the war, the life companies—like their U.S. brethren—have been channeling their new funds into municipal issues, corporation bonds, and mortgages, selling Dominion and provincial bond portfolios to do the job. But they're heavily committed in foreign bonds. They hold more bonds (\$677-million) and stocks (\$203-million) of foreign corporations than of Canadian corporations.

• **Loan and Trust Companies**—Canada's loan companies are a combination of savings banks and mortgage companies. Their funds for investment, in addition to those supplied by shareholders, come from savings deposits and the sale of debentures. At one time there was a host of small loan outfits; lately, their number has been dwindling via the merger route. Their total assets now amount to about \$400-million, 70% invested in mortgages.

Canada's trust companies do a fiduciary and savings bank business. Like loan companies, they not only take savings deposits, but also issue guaranteed investment certificates, similar to debentures. Unlike loan companies, trust companies put most of their capital and guaranteed funds into securities. Of \$500-million of capital funds last year, only 30% were in mortgage loans.

It's in their trust capacity that the

trust companies play their biggest role. Estates, trusts, and agency assets administered by the companies top \$4-billion.

III. More Stock Owners

There's not much accurate data on Canadians' holding of stocks and bonds; neither is there in the U.S. But the best experts agree that ownership has widened a lot in recent years. A lot of Canadians—never interested in securities before—are debating whether they should sink \$250 in Abitibi Power & Paper for the long haul or take a flier in a new oil find in Alberta.

Banks, insurance companies, trust and loan outfits, and industry have been splitting their shares recently to encourage the trend—all of them report a sharp increase in the number of shareholders. Bell Telephone of Canada, for example, had 83,000 stockholders at the end of 1951—up 100% in three years.

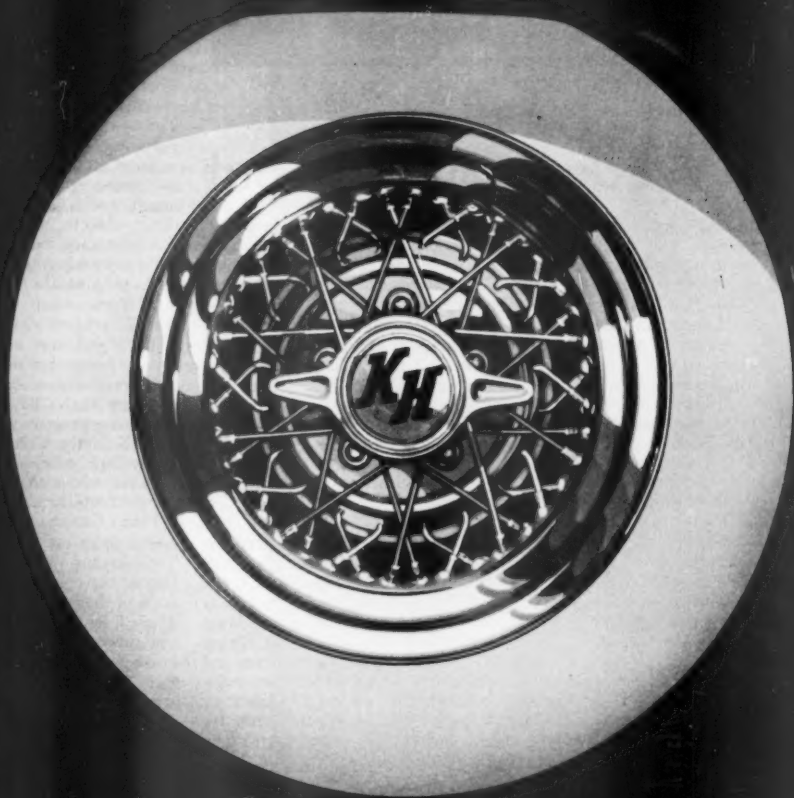
CANADA BRIEFS

Trading nation: The fifth Canadian International Trade Fair opened this week in Toronto. Salient statistics include larger participation of Canadian industry on the 186,000-sq. ft. exhibit area (up 30% over 1951), smaller British participation, a larger U.S. contingent. About 50% of the show is occupied by machinery and machine tools. . . . Canada's exports hit a new high in the first quarter, running at an annual rate of \$4.7-billion, 22% above 1951. That's despite lowered livestock sales due to foot-and-mouth disease curbs, and the rash of import restrictions in Britain and other Commonwealth nations.

• **New plants:** RCA will begin work on its electronic-manufacturing plant at Prescott, Ont., this summer. . . . Motorola, Inc., Chicago, has set up a Canadian subsidiary to make TV sets, leasing manufacturing facilities from Stromberg-Carlson Co., Ltd., in Toronto. . . . Acme Steel Co. of Canada has started to build its \$980,000 plant outside Toronto, hopes to be making flat steel strapping by fall.

• **Sheritt Gordon Mines, Ltd.,** has arranged for \$19-million to \$22-million in loans to finance its nickel-cobalt-copper mining project in northern Manitoba and a nickel refinery near Edmonton, Alta. Newmont Mining Corp. of the U.S., J. P. Morgan & Co., Metropolitan Life Insurance Co., 10 other banks and insurance companies are pitching in. Sheritt Gordon plans to get busy on the refinery this month.

KELSEY-HAYES



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PRODUCTS: Wheels—Hub and Drum Assemblies—Brakes—Vacuum Brake Power Units—for Passenger Cars, Trucks, Buses—Electric Brakes for House Trailers and Light Commercial Trailers—Wheels, Hubs, Axles, Parts for Farm Implements.

PLANTS: Kelsey-Hayes Plants in Michigan (4); McKeesport, Pa.; Los Angeles, Calif.; Davenport, Iowa; Windsor, Ontario, Canada.





IN TORONTO AND MONTREAL . . .

CBC-TV Edgy Over Debut

Come September, Canada will have television of its own. Transmitters are rising in Toronto and Montreal, studios are building, advertising rates have been posted, and Canadian Broadcasting Corp. staffs are test-running the first all-Canada programs. Advertisers—along Madison Ave. as well as in Montreal and Toronto—are wondering how Canadian TV will take hold.

• **More of the Same**—Television is always controversial. Canada's debut approaches amid the same wailing and gnashing of teeth that heralded TV in the U.S. Many performers are looking forward to the fall with jaundiced eyes. Advertisers are howling at the rate schedules and production setup; doubting Thomases predict that few sets will be sold. Would-be private telecasters are nursing their gripes against Canada's government-owned broadcasting monopoly.

Others wonder whether Canadian television—way late compared to the U.S.—will ever become a reality. One Vancouver newspaper complains that by the time British Columbia gets it, "television will probably be out of date. The Americans will have moved on to some cheaper and simpler form of pictorial transmission."

• **Controlled**—In the middle of the ruckus, striving to get TV off the ground, is the Canadian Broadcasting Corp. A government-owned crown corporation, operated independently but responsible to Parliament, CBC has tight control over all Canadian broad-

casting. Beyond CBC's own 19-station network, 130 private stations (80 of them affiliated with CBC) look to CBC rules and regulations for every program, every newscast.

CBC's control is the subject for a continuing, lively debate on freedom of the press in Canada. The government corporation school of thought was upheld last year by a Royal Commission study—the "Massey Report"—which justifies CBC's control on grounds that "radio broadcasting is akin to a monopoly" and that "normal competition is impossible."

• **Too Steep?**—CBC will run TV, too, with Parliament watching over its shoulder. Preliminary plans for television were laid in 1949, when the House of Commons voted a \$6-million loan to get it rolling. A Davidson Dunton, 39-year-old CBC chairman, figures that's enough to cover capital costs and "get us on the air." CBC operates radio on advertising revenues, Parliamentary grants, and a \$2.50 yearly license fee for set owners. For video, there's talk of a \$15 fee—though plenty of observers warn that's much too steep to give TV a good sendoff.

Right now there are only some 80,000 sets flickering in Canada. About 35,000 are in the Windsor (Ont.) area, where viewers tune in Detroit. Some 40,000 are spotted in Toronto, Hamilton, and the Niagara Falls area—with Buffalo, and sometimes Syracuse and Rochester, providing the fare. The rest are thinly scattered through southern

Ontario, with only a handful in Montreal where there's nothing to look at.

• **Hookups**—That isn't much to start with. But it does mean that roughly 150,000 Canadians are now TV regulars, exposed to U.S. programs and commercials. Canadian manufacturers and distributors figure that another 100,000 sets can be sold within 12 months after Montreal and Toronto go on the air.

After that, CBC plans to link Montreal and Ottawa and Toronto via microwave; already a microwave relay is building between Buffalo and Toronto. Plans for stations in Ottawa, Quebec City, Winnipeg, and Vancouver are being developed. But the latter two would have to rely on kinescope or local talent; a trans-Canada hookup, says Dunton, is out for the foreseeable future because of high costs.

• **A Pleasure**—Starting rates are the big bone of contention. In Toronto, the card calls for \$1,600 an hour; in Montreal, with much fewer sets, \$500. That's high, according to admen, who say that by U.S. standards, \$300 for Toronto would be more in line with the number of sets reached.

But CBC has set up its production in a different way than the U.S. The hourly rate is a flat one, includes producer, director, all technical facilities and personnel, and air time—everything but script, talent, and music. In short, CBC puts on the show for you. One New York adman reckons that brings the \$300 figure closer to \$1,600. He thinks it will work fine: His agency has found doing business with CBC a "pleasure," claims it gives good service and feels that CBC-TV may come up with some programming that will make its U.S. brethren sit up and take notice. There are other advertising people, however, who feel that they'd like a lot more control over their programs.

• **Home-Grown**—Program plans aren't nailed down yet. But CBC figures that Toronto and Montreal will broadcast two or three hours daily, with at least 80% of the Montreal output in French. There'll be kinescope, feature films, and live shows. And most of them will be home-grown in Canada—despite the fact that piping in U.S. programs would be a lot cheaper.

"We're making a drive to obtain as much Canadian talent as possible," says Dunton. That's because many Canadians are afraid that U.S. programs could dominate their own television.

• **Sponsorship**—CBC won't offer all its programs to advertisers. If CBC-radio policy is followed, programs such as newscasts, farm news, opinion programs will be sustaining.

But Dunton will welcome advertisers, says he's received many inquiries. Plenty of U.S. advertisers with affiliates in Canada are looking over the field, too.

Blown out by Mr. Edison and friends!

Read why the miracle of universal
electric light could not have
happened without America's Banks

ONE IDEA made the kerosene lamp obsolete.

But it has taken billions of dollars to replace it. America's banks put up many millions, and the story goes like this.

After Mr. Edison and his private backers proved the new incandescent lamp practical, progressive men all over the country got the notion that electric light could be sold cheaply to all the people.

From the first, the job was too big—too costly—for any individual to tackle. So groups of citizens (capitalists, if you will) got together and formed *light and power companies*.

Basically private capital has always backed any promising venture. But as the industry expanded even the most prosperous companies lacked enough hard cash for generating more power, stringing up miles of new wire and delivering current to millions of new consumers. So they went to the nation's banks for short-term loans.

They got their money. In less than 50 years, American ingenuity—teamed up with money supplied by the general public, commercial banks, and other financial institutions—put the kerosene lamp on the same museum shelf with the tallow candle.

Exceptional?

No. You can see the same pattern in just about every U. S. industry.

From the beginning, U. S. citizens have put money in banks. All together this money amounts to quite a sum in any bank, and it's the bank's job to put it to work.

Usually, progress means profits, so banks have always competed with one another to put money to work in growing industries.

As long as competitive banking and free enterprise live under the same laws, the results will continue to be more men and women at work, profits for both manufacturer and investor and better living for every man, woman and child in the nation.

Mr. Edison's light is a good example. There are many others, and there will be many more.

Chase National Bank is proud of the part it is playing in American progress.

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OF THE CITY OF NEW YORK

(Member Federal Deposit Insurance Corporation)



COMPANIES



SAIL HO, drying at the City Island (N.Y.) loft after being washed down on concrete area in foreground. It's a product of . . .

Ratsey: The Tiffany of Sailmakers



TWO GENERATIONS of Ratseys: Ernest Ratsey, right, president of the company, and his son, Colin, who is working his way up. There are three Ratseys at City Island.

On June 21, rain or shine, 50-odd of the fastest boats under sail—most of them American, with a sprinkling from Britain and other countries—will drive across a line off Newport, R. I., and head over the horizon for Bermuda. It'll be the biennial Bermuda race, the top competitive event for sailing men on the East Coast.

Roughly two-thirds of the boats will carry sails made by Ratsey & Lapthorn of New York. And it's a very good bet that most of the boats that finish in the money will have Ratsey & Lapthorn sails.

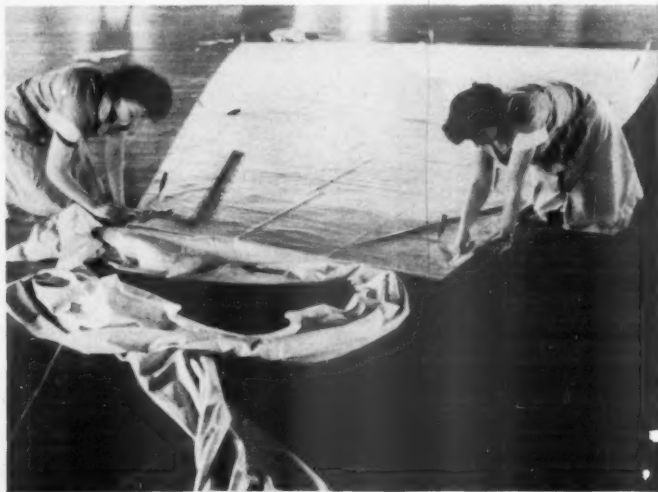
The Ratseys will have an edge both in numbers and on the record. In the Annapolis race last year—which is run alternately with the Bermuda event—the boats finishing first, second, and third in each of the three classes were driven by Ratsey sails. The three major races that make up the southern winter circuit were all taken this year by Carle-



PATTERN-MAKING

turns the design into chalkmarks on the loft floor. These

women must be precise in pegging out the points of the design that's lying on the floor, for the chalkmarks will guide the . . .



CUTTING

of each sail, a back-breaking, knee-creaking job. Most of the long seams are sewn by machine, but details still call for . . .



SEWING

by hand, with fids, awls, and other tools as of old.

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may be

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3. A shoulder-type blower-sweeper!
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"... The first Ratsey made the fore-topsail for Lord Nelson's flagship ..."

RATSEY starts on p. 174

ton Mitchell's Caribbee—under Ratsey sails.

This is nothing new for the firm of Ratsey & Laphorn. Since it was founded in England in 1790, it has been turning out sails that have set records. The first Ratsey made the fore-topsail for the Victory, Lord Nelson's flagship. And in the 1850's an Admiralty Board took note of Ratsey by recommending that all the Royal Navy's sails should be cut on his basic design.

The Ratseys came to New York 50 years ago, on the invitation of a sailing syndicate headed by the elder J. P. Morgan, who had found he couldn't get the sails he wanted in this country. The business continues in England, too, with lofts—both bombed out in World War II but later rebuilt—at Gosport and Cowes. One is run by the Laphorns, the other by Ratseys. Together, the three lofts have turned out sails for every British challenger for the America's Cup—and for every U.S. defender built since 1920.

The company has survived a century in which the world's shipping abandoned sail for steam, and decades in which progressive income taxes eliminated most of the towering yachts that once filled the harbors of Newport, R.I., and Marblehead, Mass.

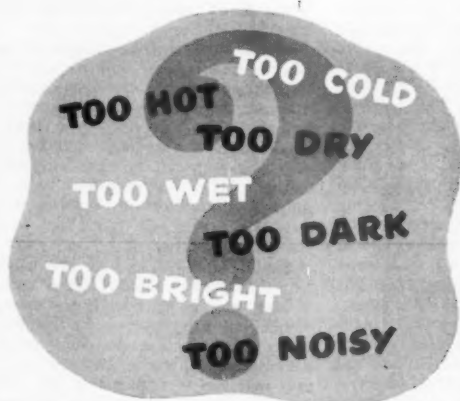
• **Recipe for Success**—What's the formula for longevity—and for producing winners?

As Ernest Ratsey, president of the company sees it, there are four things: staying small, sticking to sailmaking, giving break-your-neck service, and skill at designing. The designing—and sail designing is far more art than science—has to be good enough so that your sails win. Having your sails on the championship boats is what brings in the business.

• **Under Control**—By staying at their original site in City Island—a backwash of New York City, but a world center for sailboat men—the Ratseys have been able to keep a firm hand on their operations. The City Island plant has only about 110 on the payroll. Only now are the Ratseys opening their first branch—in Annapolis, Md.

The country's sailing center is moving south. Marblehead, once famous, sees few of the big boats now. Potential owners can no longer afford the big racing machines as such. Today's big boats—and they're small compared to the leaders in the 1920's—have to double as cruisers and racers. And, as cruisers, the owners like to have them

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"... It's a business that obstinately refuses mechanization . . ."

RATSEY starts on p. 174

in the South in the winter. They make good floating hotels and cocktail lounges. So Chesapeake Bay, the half-way stop, is more and more becoming the U. S. yachting center.

• **The Trade**—From the viewpoint of a management man, sailmaking is a tough business. For one thing, it has a rough seasonal variation—practically all the business comes between April and September. "In the winter," say the Ratseys, "people won't take sails even if you practically give them away."

Now—as it did during World War II—the company has some defense work. But there's no product the Ratseys have been able to find that will take up the slack time of their skilled sailmakers through the winter—and still leave them free for sailmaking in the summer.

• **Rush-Rush**—When they have to, the Ratseys can turn on a dime—and deliver a sail. They built a mainsail, weighing a ton, for one of the America's Cup defenders in three days by working around the clock. And recently, the patched a torn spinnaker for Crown Prince Olav of Norway in three hours—so that it could be returned overnight by air express for the next day's racing.

• **Payoff**—But the real payoff comes in designing. There's no school and no textbook for sail designers. Each sail has to be built with draft or camber—a contour much like that of an airplane wing. To get that, the canvas can't be cut as a simple triangle—it's a delicately curved shape with dimensions that, in a good sail, must be cut to 1/32 of an inch.

That's where the Ratseys' trade secrets come in.

Each of the Ratseys—there are three of them, as well as a cousin, Terence Hanna, among the executives at City Island—is a sail designer. Each new job that comes in is designed with the help of formulas developed in the family over the years. And each sail plan is recorded in a "gore book." The books—a gore is any piece on canvas cut on a bias—are kept in safes in the sail loft.

The results are orders. When the new Thistle class boats came in, the Ratseys made half a dozen sails for them—and none of them would do a job in working the boats up into the wind on a tack. So Ernest Ratsey sailed the boats, worked out four or five experimental sails, tested them, and finally settled on a new design. Thistles with the new Ratsey sail began to win class championships—and the word got around. Today the Ratseys estimate

that they build 90% of all new Thistle sails.

• **More Art**—Production is an art, too. It begins with canvas—which the Ratseys like to age for years to take some of the stretch out of it—that's woven from Egyptian staple in British mills. Lately, nylon, Orlon, dacron, and other synthetics have begun to come in. But they're all expensive.

No two pieces of canvas stretch the same way. That's one reason Ratsey refuses to mass-produce sails by cutting them in batches. No two of the sails would be the same—or close to it. For the same reason, the cutters don't even try to work on days when the humidity is high. The Ratseys don't think that air-conditioning the big lofts would help. "It would be too level; it wouldn't give canvas the chance it needs to stretch and shrink until it finally settles down into good working material."

It's a business that obstinately refuses mechanization. The Ratseys believe they bought the first Singer sewing machine. But the sewing machines are virtually the only pieces of mechanized equipment in the big lofts. All the work of sewing in grommets, rings and other fittings, and of sewing in wire rope, is done by sailmakers with benches, fids, awls, and needles very much like those the first Ratsey used.

• **Costs Down**—In spite of this handwork, the Ratseys believe they've come a long way in getting prices down. While outfitting one of the big Bermuda racers with a complete set of working, racing, storm, and other extra sails may run to as much as \$15,000, many an owner of small boats will get his sails for less than \$200.

• **Don't Miss Many Boats**—Ratsey & Laphorn hasn't survived 162 years without making mistakes. It missed at least one boat in 1930, for example. That, in many ways, was the company's biggest year. The U. S. was tuning up five J-boats to defend the America's Cup against Sir Thomas Lipton's big challenger. The five boats were all to have Ratsey sails—roughly \$500,000 worth of them.

That extended even the world's biggest sail loft. So the Ratseys turned down some other orders. Result: Word went around that you couldn't get sails from Ratsey unless you were a cup defender—and willing to pay the price. With the depression coming on—and with luxury trades collapsing fast—that hurt.

In the end, the Ratseys made the switch successfully to small boats. Before the depression, sails for small boats—the 12- to 20-footers that are legion now—were seldom seen in the big City Island lofts. Now they make up roughly 90% of the volume, and the Ratseys hope to see a lot more of them.

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THOMAS A. EDISON INC. (EDIPHONE DIV.)	59	UNITED STATES RUBBER CO.	9	Agency—Paris & Pratt	
Agency—Green-Brooks		U. S. STEEL CORP.	115	YOUNGSTOWN STEEL CAR CORP.	150
ELECTRIC STORAGE BATTERY CO.	22	VEEDER-ROOT, INC.	8	Agency—Meeck & Thomas, Inc.	
Agency—George Marston, Inc.		VIRGINIA METAL PRODUCTS CORP.	99		
EMHART MFG. CO.	40-49	WARD LEONARD ELECTRIC CO.	31		
Agency—The Chase Hummel Co.		WARNER & SWASEY CO.	12		
EMPLOYERS MUTUAL LIABILITY INS. CO. OF WISC.	14	WASSILL ORGANIZATION, INC.	170		
Agency—Hamm & Co., Agency, Inc.		WEBSTER-CHICAGO CORP.	132		
ESTERBROOK PEN CO.	101	WARREN WEBSTER & CO.	3		
Agency—The Aitkin-Kynett Co.		WELLMAN ENGINEERING CO.	146		

The High Court Clears the Air

"This seizure order cannot stand."

That is how the Supreme Court said the final word in the heated debate over the President's right to seize the steel industry. By its 6-3 vote, the nation's highest tribunal turned down the President's assertion that he has inherent powers to justify such a seizure.

This is an historic decision. In sustaining Judge Pine's earlier ruling setting aside the steel seizure order, the Supreme Court spoke out in the great tradition of free government.

It was confronted with a fundamental decision in the definition of powers under the Constitution. The court penetrated through a thicket of subsidiary matters to the core issue: Does the Chief Executive have the power to take over private property without express authorization in the Constitution or from Congress? It said he does not.

The decision is memorable because it helps arrest the dangerous trend toward concentration of power in the executive branch of the government, toward a loose interpretation of the Constitution, and toward the subordination of Congress. In this decision the court makes it clear that, under the Constitution, Congress, not the Chief Executive, makes the law. That needed to be said again, with authority.

These excerpts from Justice Black's majority opinion restate a fundamental principle of American government.

THE President's power to issue the order must stem either from an act of Congress or from the Constitution itself. There is no statute that expressly authorizes the President to take possession of property as he did here. Nor is there any act of Congress to which our attention has been directed from which such a power can fairly be implied."

"It is clear that if the President had authority to issue the order he did, it must be found in some provisions of the Constitution. And it is not claimed that express constitutional language grants this power to the President. The contention is that presidential power should be implied from the aggregate of his powers under Article II of the Constitution.

"The order cannot properly be sustained as an exercise of the President's military power as Commander in Chief of the Armed Forces. The Government attempts to do so by citing a number of cases upholding broad powers in military commanders engaged in day-to-day fighting in a theater of war. Such cases need not concern us here. Even though 'theater of war' be an expanding concept, we cannot with faithfulness to our constitutional system hold that the Commander in Chief of the Armed Forces

has the ultimate power as such to take possession of private property in order to keep labor disputes from stopping production. This is a job for the nation's lawmakers, not for its military authorities.

"Nor can the seizure order be sustained because of the several constitutional provisions that grant executive power to the President. In the framework of our Constitution, the President's power to see that the laws are faithfully executed refutes the idea that he is to be a lawmaker. The Constitution limits his functions in the law-making process to the recommending of laws he thinks wise and the vetoing of laws he thinks bad. And the Constitution is neither silent nor equivocal about who shall make laws which the President is to execute. The first section of the first article says that 'All legislative powers herein granted shall be vested in a Congress of the United States. . . .' After granting many powers to the Congress, Article I goes on to provide that Congress may 'make all laws which shall be necessary and proper for carrying into execution the foregoing powers and all other powers vested by this Constitution in the Government of the United States, or in any department or officer thereof.'

"The President's order does not direct that a congressional policy be executed in a manner prescribed by Congress—it directs that a presidential policy be executed in a manner prescribed by the President."

"The founders of this nation entrusted the law-making power to the Congress alone in both good and bad times. It would do no good to recall the historical events. The fears of power and the hopes for freedom that lay behind their choice. Such a review would but confirm our holding that this seizure order cannot stand."

JUSTICE Jackson, who concurred with Black, added this:

"The opinions of judges, no less than executives and publicists, often suffer the infirmity of confusing the issue of a power's validity with the cause it is invoked to promote, or confounding the permanent executive office with its temporary occupant. The tendency is strong to emphasize transient results upon policies—such as wages or stabilization—and lose sight of enduring consequences upon the balanced power structure of our Republic."

These are great words setting forth great truths. That they express the final judgment in this troubled matter is a happy thing for the country.

*Kant
Lect. of Phil. Prof. 1797
Reg. Acad. Great Hall, Univ.*

There are three juridical attributes
that inseparably belong to citizens by right.

These are:

[1]

constitutional freedom,
as the right of every citizen
to have to obey no other law than that
to which he has given his consent or approval;

[2]

civil equality,
as the right of the citizen
to recognize no one as a superior among the people in relation
to himself . . . ;

and [3]

political independence,
as the right to owe his existence and continuance in society
not to the arbitrary will of another,
but to his own rights and powers as a member of the commonwealth.

[Science of right, 1797]



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